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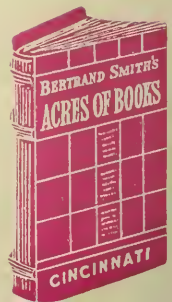

GROUP OF MONKEYS.

CHACMA. CHIMPANSEE.
ORANG-OUTAN.
RING-TAILED LEMUR. SPIDER-MONKEY.

NATURAL HISTORY

PICTURE BOOK.

MAMMALIA.

BY

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INTRODUCTION.

The Animal Kingdom is divided into many great classes, the first of which is known by the term of Mammalia, and comprises a vast number of animals of different forms, natures, and habits. In this little volume will be found a short history of the more prominent members of this class, whose characteristics are briefly and simply as follows.

The term Mammalia is derived from the Latin word "mamma," or breast, and is appropriated to these creatures because during their earliest days of life they obtain their nourishment from their mother's breast. They all possess a skeleton, composed of firm, solid bones; the blood is red and warm, propelled by means of a heart with four cavities, and they breathe by means of lungs, and not by gills.

The skin of these creatures is almost always furnished with hairs, more or less plentiful and more or less strong. In most instances the hairs are thickly planted and moderately fine, while in some species, such as the Rabbit and the Chinchilla, they are singularly soft and downy. Sometimes the hairs are stiff and coarse, as in the Swine, and are then termed bristles, and in some instances they become enormously thick and strong, as in the Hedgehog, the Porcupine, and the Echidna, and are then called spines.

Some few Mammalia are covered with a curious armour of bony plates, which are either arranged in regular bands, as in the Armadillo, or overlap each other like the tiles of a house, as in the Manis. Yet even these strangely clad creatures are also supplied with hair, which appears between the spines and plates, and upon the lower surface of the body.

Members of this great class are to be found in all parts of the world, and are so formed as to be enabled to inhabit a singular variety of localities The generality of the Mammalia live upon the ground, but there are very many species which are seldom seen upon the surface of the earth. Some, as for example, the whole Monkey tribe, are, as a rule, inhabitants of trees; and the Bats are denizens of air, together with the birds. The Whales are only to be found in the sea; and there are many creatures, among whom the Common Mole is the most prominent, which pass the greater part of their existence below the surface of the ground.

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THE GORILLA.—*Troglodytes Gorilla.*

The Gorilla is the largest of all the four-handed animals—those creatures which we know by the more familiar names of Apes, Baboons, and Monkeys. They are termed four-handed animals because they are furnished with four hand-like extremities, to their limbs, instead of having two hands and two feet as ourselves, or four feet as is the case with the greater portion of the Mammalia. The Apes, of

which the Gorilla is the chief, are known from the other members of the group, because they do not possess either tails or pouches in their cheeks.

The Gorilla is found in the Western parts of Africa in the Gaboon district; and on account of his very great size, strength, and savage temper, is much feared by the natives.

Concealed among the thick branches of the forest trees, the Gorilla, itself unseen, watches the approach of the unsuspecting negro. Should he pass under the tree, woe betide him; for the Gorilla lets down its terrible hind foot, grasps its victim round the throat, lifts him from the earth, and finally drops him on the ground, dead. The young reader will not fail to observe that the hind-foot of this fearful Ape is remarkably large and strong, and perfectly capable of performing this cruel feat.

Very fortunately for the human inhabitants of the same country, the Gorilla is a solitary animal, and does not unite in society like other apes and monkeys. There is a very well stuffed specimen of this animal in the British Museum, which the reader will do well to see, as also to examine its skeleton which is placed in an adjoining compartment.

The Gorilla is so spiteful and fierce that the natives dread it more than the Lion and have never even attempted to catch a full grown animal Once or twice, the young Gorillas have been captured, in spite of the furious resistance which is made by their male friends; but from some reason they have always died in a very short time.

Cunning as is the Gorilla, and ingenious in some things to a striking degree, its intelligence is but limited, and the animal exhibits such unexpected instances of fatuity, that it well shows the distinction between cunning and wisdom, and proves itself to be but an animal, and nothing more.

If it finds the remnant of a fire which has been relinquished by the persons who kindled it, the Gorilla is greatly charmed with the novel sensation produced by artificial warmth, and sits by the bright wonder with much satisfaction. As the fire fails, and the glowing brands sink into white ashes, the animal draws closer to the expiring embers, and does not leave them until all heat has left the spot. But it never thinks of keeping up the fire by placing fresh fuel upon it, and does not learn to imitate that action, which it may often have seen performed by the hunters who kindled the fire, and kept it well supplied with fuel during the night. It is most providential that the beast is devoid of this faculty, for, with the usual perseverance of the monkey race in such cases, it would probably continue to heap fuel until the forest itself was ablaze.

It is said also, that when the Gorilla makes an incursion into a sugar plantation, it has sufficient sense to bite off a number of the canes, and to twist them into a

bundle for better conveyance. But it frequently includes several of the growing canes in its faggot, and then feels woefully disconcerted because it cannot carry away the parcel which has cost so much trouble in making.

The natives of Africa have an idea that these, and other large apes, are really men; but that they pretend to be stupid and dumb, in order to escape impressment as slaves.

The Gorilla is covered with coarse hair of a blackish brown colour; and it will be found that upon the arms the hair from the shoulder to the elbow points downwards; while that which grows on the part of the arm between the wrist and elbow, points upwards. The arms are remarkably long, and are muscular in proportion to their length. Its teeth are thick, long, and sharply pointed. Its height is about five feet.

THE CHIMPANSEE.—*Troglodytes Niger.*

Closely connected with the preceding animal is the large black ape, which is now well known by the name of Chimpansee.

This creature is found in the same parts of Western Africa as the gorilla, being very common near the Gaboon. It ranges over a considerable space of country, inhabiting a belt of land some ten or more degrees north and south of the torrid zone.

The title *niger*, or black, sufficiently indicates the colour of the hair which envelops the body and limbs of the Chimpansee. The tint of the hair is almost precisely the same as that of the gorilla, being nearly entirely black; the exception being a few whiter hairs scattered thinly over the muzzle. Age seems to give the hair of the animal a greyish tint in many places. As in the gorilla, the hair of the fore-arm is turned towards the elbow, where it meets the hair from the upper arm, and forms a pointed tuft.

In its habits it is not very like the gorilla, because it cares comparatively little for trees, but passes the greater part of its time upon the ground, making its home in caverns or broken rocky ground. It dwells together in troops, and defies the attacks of the lion, leopard,and other dangerous wild animals of the same country; for there is no animal that would dare to attack a troop of Chimpansees,and very few who would venture to fight with one of these fearful apes. Still, the Chimpansee has a wholesome fear of any creature that might hurt him, and instinctively runs away from a leopard, even if the ravenous beast be chained and unable to get loose.

It its native woods, the Chimpansee feeds chiefly on vegetable substances, and

THE CHIMPANSEE.

often makes terrible havoc among cultivated lands, robbing the plantations of bananas or plantains, as soon as the fruit is ripe.

Like most animals that herd together, even in limited numbers, the Chimpansees have ever a watchful sentinel posted on the look-out, whose duty it is to guard against the insidious approach of foes, and to give warning if he sees, hears, or smells, anything of a suspicious character.

Should the sentinel ape perceive a sign of danger, he sets up a loud cry, which has been likened to the anguished scream of a man in sore distress. The other

apes know well enough the meaning of that cry, and signify their comprehension by answering cries. If the danger continues to threaten, then the ape-conversation becomes loud, shrill, and hoarse, and the air is filled with the various notes of the simian language, perfectly understood by themselves, although to human ears it consists of nothing but discordant yells and barks.

Several species of the Chimpansee have been taken while young and brought to Europe.

In the Jardin des Plantes, in Paris, there was a remarkably fine specimen of the Chimpansee. Black, sleek, and glossy, he was *facile princeps* in the establishment, and none dared to dispute his authority. He was active enough, and displayed very great strength, and some agility, as he swung himself from side to side of the cage, by means of the ropes that are suspended from the roof; but he preserved a dignified air as became the sole ruler.

There was a kind of aristocratic calmness about the animal, and he would, at intervals, pause in his airy promenade, and seating himself on a convenient spot, deliberately scan the large assembly that generally surrounded the monkey house His survey completed, he would eat a nut or a piece of biscuit, and recommence his leisurely gambols. His health seemed to be perfectly good, as was shown by the alertness of his movements, and the full, open look of his eyes.

A sad contrast to this animal was presented by a wretched little Chimpansee which I saw in England. He was still possessed of sufficient strength to move about his cage, but executed all his movements in a slow, listless manner, that would have told its own tale, had not the frequent hacking cough spoken so plainly of the malady that was consuming his vitals. The countenance of the poor creature was very sad, and he did not appear to take the least interest in anything that occurred.

ORANG-OUTAN —*Símia Sátyrus.*

Although these Apes present some distant resemblance to the outline of the human form, all likeness vanishes when they attempt to stand erect and walk. None of them are able to walk without the assistance of the hands, and the reader will doubtlessly have remarked that each creature is represented with the knuckles of one hand resting on the tree-trunk on which they are supported. This peculiar action has been thus noted, because, when these creatures aid their steps by placing the hands on the ground, they have the curious habit of resting the

knuckles on the ground, instead of the palms of the hands, as might have been supposed. From this peculiarity, the three apes have received the appropriate title of "knuckle-walkers."

The Orang-outan is a native of Asia, and only to be found upon a small portion of that part of the globe. Borneo and Sumatra are the land most favoured by the Orang-outan, which inhabits the woody districts of those islands and there rules supreme, unless attacked by man.

The Orang-outan is easily distinguished from the Gorilla and Chimpansee, being of a light reddish chesnut, and when grown and of full age, the males are remarkable for the singular manner in which the face is swollen, and the jaws project. In all cases, the old apes are savage, sullen, dangerous, and testy of temper; but when young they are sufficiently docile, and can easily be tamed. Several of these young apes have been brought to England, but they all die in a short time. One of them, with whom I had a personal acquaintance, was a curious old-fashioned creature, bearing a resemblance to a garden spider, being furnished with a very little head, set closely upon the shoulders, a round lump of a body and inordinately long legs and arms. It had a quaint, wistfully beseeching expression in its little wizened face, and had just the air of a decrepit man of sixty. A young Orang-outan was tamed by Dr. Abel, who gives the following account of its life.

At first the ape was put into a cage, but he broke the bars and got out. Then he was chained, but he detached the chain from the staple, and finding that the heavy links incommoded him, he coiled the chain round his shoulder, and to prevent it from slipping, held the end in his mouth. As he always succeeded in escaping from his bonds, his keepers made a virtue of necessity, and permitted him to enjoy the full range of the vessel. Among the ropes he was quite at home, and, trusting to his superior activity, was accustomed to take liberties with the sailors, and then escape among the ropes. One very curious trait in his character must be given in the words of the narrator.

"Although so gentle when not exceedingly irritated, the Orang-outan could be excited to violent rage, which he expressed by opening his mouth, showing his teeth, and seizing and biting those who were near him.

"Sometimes, indeed, he seemed almost driven to desperation; and on two or three occasions committed an act which in a rational being would have been called the threatening of suicide. If repeatedly refused an orange when he attempted to take it, he would shriek violently and swing furiously about the ropes, then return and endeavour to obtain it. If again refused, he would roll for some time like an angry child upon the deck, uttering the most piercing screams; and then, suddenly starting up, rush furiously over the side of the ship and disappear.

ORANG-OUTAN.

'On first witnessing this act, we thought that he had thrown himself into the sea; but on a search being made, found him concealed under the chains."

He learned artificial tastes of civilization, and preferred tea and coffee to water. Tastes less natural and more to be regretted soon followed, for he took to drinking wine, and was so fond of spirituous liquids, that he was detected in stealing the captain's brandy-bottle. This interesting animal survived the English climate for about eighteen months, and then succumbed to the usual foe of the

monkey race. The fatal issue of the disease was probably promoted by the shedding of his teeth.

In height, the full grown male Orang-outan is about four feet six inches.

There seem to be at least two species of this animal, that are found in Borneo, and some zoologists consider the Sumatran ape to be a third species.

The natives distinguish the two Bornean species by the name of Mias-kassar, and Mias-pappan, the latter of which animals is the *Simia satyrus*, so well represented in the engraving.

The Pappan is a truly terrible animal when roused to anger, and would be even more formidable than is the case, were it endowed with a less slothful disposition. Its length of arm is very great; for when the animal stands erect, and permits the arms to hang by its sides, its hands can nearly touch the ground. The muscular power of these arms is proportionate to their length, and it is chiefly by means of the upper limbs that the ape makes progress among the boughs of the trees on which it loves to live.

So powerful, indeed, are the arms, that a female Orang has been known to snap a strong spear like a reed, and this after she had been weakened by many wounds and loss of blood. In attack the Orang-outan is not sparing of teeth as well as hands, and uses to the utmost the weapons with which it has been endowed. The teeth of an adult Orang are truly formidable weapons, and it is said that even the leopard cares not to prove their power. So strong are even the front teeth, that they are capable of gnawing through and tearing away the dense fibrous covering in which the cocoa-nut is enveloped, and possibly can cut through the hard shell itself. Besides these teeth, the Orang is furnished with enormous canines, or tusks, the object of which is probably to act as offensive weapons; for the Orang is a vegetable-feeding animal, and the canine teeth can hardly be given merely for the purpose of cutting vegetable food.

Although the hind limbs are not so largely developed as the arms, yet they possess great power, and are perfectly adapted to the purpose which they serve. For terrestrial locomotion they are anything but fitted, as the animal is unable to plant the sole, or rather the palm, flat upon the ground, and rests upon the outside edges of the feet.

The walk of the Orang-outan is little better than an awkward hobble, and the creature shuffles along uneasily by help of its arms. The hands are placed on the ground, and are used as crutches in aid of the feet, which are often raised entirely from the ground, and the body swung through the arms. Sometimes it bends considerably backwards, and throwing its long arms over its head, preserves its equilibrium by their means.

This attitude is caused by the peculiar structure of the hind limbs, which,

besides their comparative shortness, are only loosely jointed on the hip-bones. The Orang-outan is destitute of the short, but very strong ligament, that binds the thigh-bone to the hip-joint. This ligament is very powerful in man, and plays an important part in giving him that steady tread, which alone is sufficient to distinguish the human species from the apes.

But the Orang-outan is intended for an arboreal life, and requires limbs that can adapt themselves to the boughs. Therefore the legs are so twisted inwards, that the feet can grasp the branches freely, and hold the body in its position, while the long arms are stretched out to take a fresh hold.

Among the trees the Orang-outan is in its element, and traverses the boughs with an ease and freedom that contrasts strongly with its awkward movements when on the ground. It has a curious habit of making for itself a temporary resting-place, by weaving together the branches so as to make a rude platform or scaffold on which it reposes. The powerful limbs of the animal enable it to execute this task in a very short time. Rajah Brooke of Sarawak narrates an interesting tale of a female Orang-outan, which when severely wounded ceased her attempts to escape, and weaving together a branch-platform, seated herself upon it, and quietly awaited her end. The poor animal received several more shots before she expired, and as she fell dead upon her extemporary edifice, the hunters were put to some trouble before they could dislodge the dead body. The whole process of weaving the branches and seating herself did not occupy more than a minute.

SILVERY GIBBON.—*Hylobates Leuciscus.*

The Gibbon, of which there are several species, are remarkable for the great length of their arms, and the general light strength of the entire structure. They are especially adapted for living upon trees, on which they swing themselves from one branch to another, to a distance of thirty or forty feet.

The Silvery Gibbon is an inhabitant of the Malaccas, and lives chiefly among the canes and tall plants. Among these animals the Agile Gibbon is the most remarkable for its activity.

When startled, the Agile Gibbon flits at once to the top of the tree, and then, seizing the branch that seems best adapted to its purpose, it swings itself once or twice to gain an impetus, and launches itself through the air like a stone from a sling, gaining its force very much on the same principle. Seizing another branch, towards which it aims itself, and which it reaches with unerring certainty,

the creature repeats the process, and flings itself with ease through distances of thirty or forty feet, flying along as if by magic. Those who have seen it urging its flight over the trees, have compared its actions and appearance to those of a bird. Indeed, these creatures seem to pass a life that is more aerial than that of many birds, putting out of question the heavy earth-walking birds which have not the power to raise themselves from the ground, even if they had the will.

One of these interesting creatures was brought to England, and being furnished with a very roomy apartment and carefully treated, lived for a considerable period.

A large apartment was prepared for it, and branches set up at some distance from each other, so as to give it as much room as possible for its wonderful evolutions. Eighteen feet appears to have been the farthest distance between the branches, and this space was cleared with consummate ease, as would probably be the case with an animal which was accustomed to launch itself through a space nearly double the eighteen feet. The animal, however, was hindered by many drawbacks. Putting aside the disadvantages of a strange climate and the want of the usual food, she had been subjected to the inconvenience of a long sea voyage, had suffered from confinement and the deprivation of her natural atmosphere. Even with all these drawbacks, the Gibbon exhibited such singular feats of agility, that the spectators were lost in astonishment.

She was accustomed to fling herself, without the least warning or apparent preparation, from the branch on which she might be sitting, towards another branch, which she invariably succeeded in catching with her outstretched hand. From branch to branch the Gibbon would continue her flight, for so it might be aptly termed, without cessation, until checked. The most curious part of the performance was, that she did not seem to require any further impulse after her first swing, but was content just to touch the branches as she passed from one to the other. So easy was this exercise, and of such quick eye and hand was the animal possessed, that the spectators were accustomed to amuse themselves by throwing fruits or other objects in the air, which she would adroitly catch as she passed along, without thinking it needful to stop for that purpose.

Swift as was its flight, the equilibric powers of the animal were so perfect, that even in its most rapid course it could arrest itself in a moment, catching a branch with the hands, and then suddenly drawing up the hinder feet to the same level. The firm grasp of the hinder feet then came into play, and the creature sat on the branch as quietly as if it had never stirred.

The voice of this ape is of a very peculiar character, and its powers are put forth with the greatest intensity while the animal is performing its wonderful feats of agility. The time of day seems to have some influence upon the creature and its

SILVERY GIBBON.

cry, for in its native state the Gibbon is most noisy in the early mornings,—the loud, strange cry being probably a call-note to its companions. Even in the open air, this call-note is exceedingly loud, and can be heard at great distances, so that when the animal is confined in a room and exerts its voice, the ears of the bystanders suffer somewhat from its deafening resonance.

In themselves, the notes of this curious cry are rather musical than otherwise, but they are uttered with such vigour, that they become painful to the ears.

To judge by the cry of the female Gibbon, it is quite a musical performance, capable of being set to musical notes, and coming to an abrupt conclusion, by a couple of barks in octaves. The animal achieves the chromatic scale admirably, effecting the descent (no easy task even to the practised human vocalist) with a precision and rapidity that renders the vocal gymnastics as remarkable as those of the limbs. The note on which the creature began was E; and starting from this note, she began a series of chromatics, first ascending to the upper octave, and then descending in the same way, but always sounding the lower E almost simultaneously with the upper note, whatever that note might be. These musical efforts seemed to excite the creature greatly, for her whole frame appeared stung to a pitch of great intensity, her body dilated and quivered with excitement while

she uttered her rapid cry, and at its conclusion she shook with all her strength the object to which she was clinging.

This individual was pleasing in manners, gentle and caressing to those whom she favoured. With delicate discrimination, she at once admitted ladies into her confidence, and would come to them voluntarily, shake hands, and permit herself to be stroked. But when gentlemen tried to gain her affection, she deliberated on the matter, and did not allow of a nearer acquaintance without further investigation. But when her scruples were once overcome, she was perfectly affectionate and confiding.

Some idea of the proportion of limbs and body of this ape may be gained by contrasting them with those of the human form. An ordinary man, when standing erect, permitting the arms to hang freely by his sides, finds that the tips of his fingers reach to the middle of the thigh. But when the Gibbon assumes the erect attitude, its finger-tips reach as far as the ankle-joint. Again, if a well-proportioned man stand perfectly erect, and stretches his arms out in a horizontal direction, the distance between the extended finger-tips is as nearly as possible equal to the height of the body, measured from the top of the head to the ground. But if the Agile Gibbon extends its limbs in a similar manner, the measurement between the fingers is just double that of the entire height of the animal

On account of this preponderance of the arms over the legs, the Agile Gibbon is not a very good walker on its hinder feet, but waddles along in an awkward fashion. While thus employed, the animal sways its long arms as balancers after the fashion of a rope-dancer, and now and then helps itself along the level surface with the hands on the ground. The Gibbon, though so marvellously light and active among trees, is totally out of its element when it is deprived of the branches, and forced to traverse the flat ground, All its elegance and exquisite address are lost, and the creature becomes as clumsy as it was formerly graceful. A swan while awkwardly hobbling over dry land, with a gait like that of a lame Silenus, affords no greater contrast to the same bird when proudly sailing on the water with arched neck and gliding movement, than does the Gibbon when stranded on unfamiliar earth to the same animal disporting itself among the congenial branches.

This species does not appear to love society as much as do many of the apes and monkeys, but lives in pairs, contented with the society of its own family.

URSINE COLOBUS—*Colobus ursínus.* BLACK COLOBUS—*Cólobus Sátanas.*

These Monkeys possess both tails and cheek pouches. Those monkeys which are placed in the genus Colobus, are known by the curious form of the fore paws, from which the thumb is almost totally absent. They are all inhabitants of Africa.

The Ursine, or Bear-like Colobus, is so named because the general colour of its long black fur, and the form of the monkey itself, with the exception of the tail, has something of the bearish aspect. The cheeks and chin of this animal are covered with white hair; there is a white patch on the hind legs; and with the exception of a few inches at its root, which retain the black hue of the body, the tail is of a beautiful white, terminated with a long and full white tuft.

Another species, called the Full-maned Colobus, is rather a remarkable animal, not so much on account of its habits, of which little is known, but on account of the huge mass of long hairs which cover the head and shoulders, falling nearly as low as the middle of the breast. The colour of this mane, or "full-bottomed peruke," as it has also been called, is yellow, with black hairs intermixed. Like the Ursine Colobus, the Full-mane possesses a tail of a white colour, decorated with a snowy-white tuft.

The Black Colobus is devoid of those exquisitely white portions of the fur that are so strongly marked in the Ursine and Full-maned Colobus. The head, body, limbs, and even the tail, are jet black, unrelieved by any admixture of a lighter tint.

GRIVET--*Cercopithécus Engythithia.* GREEN MONKEY--*Cercopithecus Sabæus.*

VERVET—*Cercopithécus Pygerýthrus.*

The little animals which compose the present group are all from Africa, and are very common in their native land. The performing monkeys that parade the streets upon barrel organs, are generally of this genus.

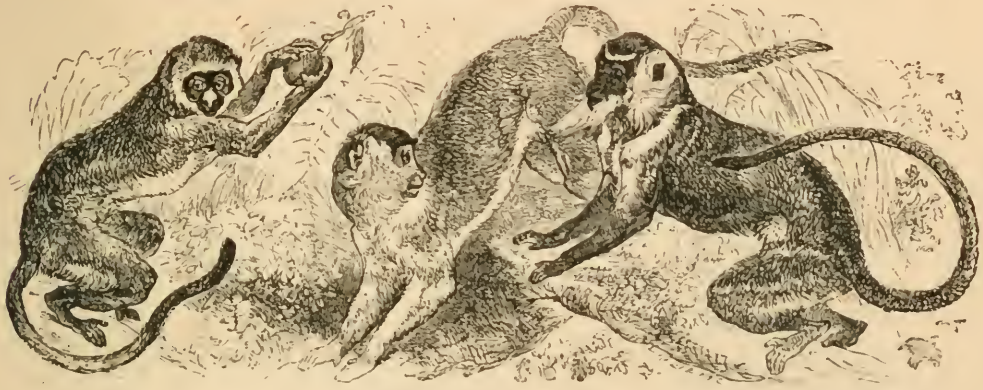
The Grivet, or Tota, as it is called by some writers, is of a sombre green colour; the green being produced by an admixture of black and yellow hair. The limbs and tail are of a greyer tint than the rest of the body, the yellow portion of the hair being changed to a dull white. The inside of the limbs and the abdomen are slightly tinged with white. In the male animal the canine teeth are rather protuberant, showing themselves beyond the lips. The naked skin of the face, ears, and palms, is black, dashed with that deep violet hue that is found in so many of the monkeys. At each side of the head, the white hairs stand out boldly, whisker fashion, and give a very lively character to the head. This animal is common in Abyssinia.

The centre of the group is occupied by the Green Monkey, sometimes called the Callithrix, or Beautiful-haired Monkey, on account of the exquisitely delicate marking of each separate hair. The inside of the limbs is nearly white, as is the under surface of the body, and the outer side of the limbs takes a greyish tinge. The hairy fringe that grows over the side of the face is of a delicate golden yellow.

This monkey is a native of Senegal and the neighbouring parts, and is frequently brought to this country.

The Vervet is the last of the figures. This is rather a variable animal in

point of colour, some specimens being decidedly pale, while others assume a blackish hue. In general, the colour of the animal is as follows: The prevailing tint of the fur is much the same as that of the Grivet, to which animal the Vervet bears a strong resemblance. The head, the throat, and breast, are of a light dun, the paws being very dark. In the male Vervet the canine teeth are rather long, and show their points beyond the lips.



THE WHITE-NOSE MONKEY. THE PATAS THE DIANA MONKEY.

Cercopithécus Petaurista. *Cercopithécus ruber.* *Cercopithécus Diana.*

The three monkeys which form the subject of the accompanying engraving are all members of the same genus, although they are marked by decided differences of colour and general aspect.

The little animal which occupies the left hand of the group is the White-nose Monkey of Western Africa. It is a curious little creature, with an air of quaint conceit, for which it is indebted to the fringe of white hairs that surrounds its face, and the conspicuous white spot on the nose, which has earned for it the title of White-nose. As is so often the case in these animals, the under side of the body and inside of the limbs is of a much lighter tint than the upper portions. This distinction is peculiarly well marked in the long tail, which is nearly black above, and beneath takes a greyish hue.

The central figure of the group is the Patas, sometimes called the Red Monkey, on account of the ruddy colour of the hair. The general tint of the

fur is a bright chestnut, or fawn colour, with a deep shading of red. This hue is shown very decidedly on the sides and on the outer portions of the hind legs, the legs themselves being of a darkish cream colour. The breast and the fore-limbs are covered with hair, which much resembles that of the Green Monkey.

It is an inhabitant of Western Africa, being found very commonly in Senegal. In size it is much superior to the last-mentioned animal, reaching more than three feet in length.

The monkey which is known by the name of the DIANA is remarkable not only for its quaint aspect, but for the richly variegated tints with which its fur is adorned. The most conspicuous feature in the Diana Monkey, is the long and sharply pointed beard which decorates its chin and face. The colour of the beard is a pure white, and the animal is extremely solicitous about the perfect spotlessness of its hue, taking every precaution to preserve the cherished ornament from stain. So careful is the monkey, that when it drinks it holds back its beard with one hand, lest it should dip into the liquid and be soiled.

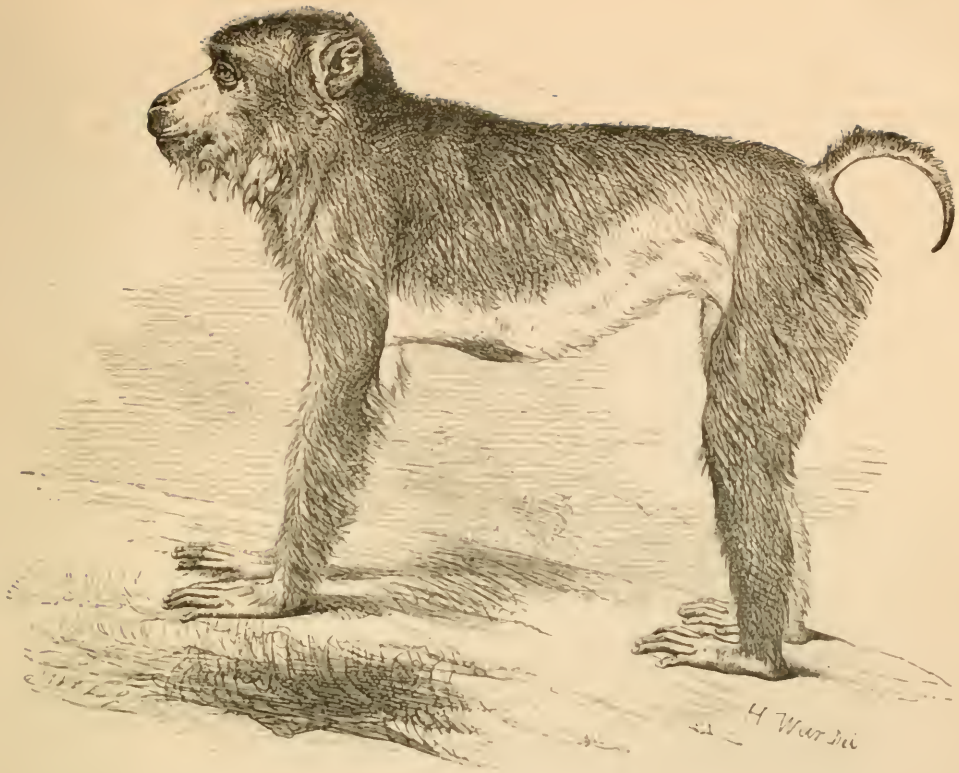
All the preceding long-tail monkeys are known collectively by the name of GUENONS.

BRUH OR PIG-TAIL MACAQUE.—*Macacus nemestrinus.*

THE MACAQUES form a very numerous and interesting group of monkeys, including the MAGOT or BARBARY APE of Gibraltar rock, with the well known BHUNDER or BONDY of India, and the animal which is represented in the engraving. A pair of these creatures were placed in the Zoological Gardens, and were very amusing in their habits.

On one occasion, a young lady happened to pass near a cage where a pair of these animals where confined, and their attention was immediately drawn to some beautiful white feathers which she bore on her hat. Now, the monkeys were far too wise to betray the least emotion, and not even by a look did they show that they had even observed the objects on which their very hearts were fixed. But any one who knew the ways of monkeys, could divine by the sudden sparkle of the eye, that there was mischief brewing.

For some time, all went on as usual. The two monkeys held out their paws for nuts, cracked them, ate the sound kernels, and flung the bad nuts at the donors, just as if they had nothing on their minds, and had no soul above nuts. Interested by the amusing pranks which the creatures were playing, the owner of the feathers incautiously approached within reach of the cage. Almost too



PIG-TAILED MACAQUE.

quickly for the eye to follow, one of the Bruhs shot down the bars, and with a single adroit movement, whipped out one of the white feathers and leaped to the back of the cage. Seating himself on the ground, he gravely inspected his prize, turning it over in every direction, smelling it critically, and biting off little strips of the feather, in order to ascertain the flavour. Having satisfied himself on these points, he stuck the feather behind one of his ears, so that it drooped over his head in ludicrous imitation of the manner in which it had been fastened into the hat. Thus accoutred, he paraded about the floor of the cage with stately pride.

His companion now thought himself entitled to some share in the booty, and, creeping up stealthily from behind, made a sudden spring at the feather. It was quite useless, for the original thief was on the alert, and, putting the feather in his mouth, he climbed up a suspended rope with wonderful agility; and in order to guard against an attack from below, he coiled up the rope with his hinder feet as

fast as he ascended, thus cutting off all communication from the ground. When he reached the ceiling, he hitched his fingers and toes through the staple to which the rope was attached, and thus remained for awhile in perfect security. However, even a monkey's limbs will not maintain their hold for ever, and the Bruh was forced to descend. His companion was waiting for him on the floor, and, when he reached the ground, gave chase, the two monkeys leaping about the cage, climbing the bars, and swinging from the ropes in the most agile manner. At last they seemed to be tired of the game, and, sitting on one of the bars, amicably set to work at the feather, picking out each vane separately, nibbling it, and spurting the fragments on the floor.

Just at this juncture the keeper made his appearance at the door, and the very gleam of his cap was a signal for the delinquents to dive into the furthermost corner of their cage, out of reach of stick or whip. The feather was ultimately restored to its rightful owner, but as its shaft had been bitten nearly through, had lost many of its snowy vanes, and hung limp and flaccid, as if it had been mangled, there was slight probability of its ever renewing its position upon hat or bonnet.

As to the depredators, they were incorrigible. Hardly had the excitement caused by the feather-robbery begun to subside, when a fresh storm of laughter and exclamations arose.

On my returning to the cage, the same monkey was seen perched on his bar examining leisurely a new prize in the shape of a bracelet, which he had snatched from the hand of a lady who was offering some biscuit. It was one of those bracelets that are composed of large beads, threaded on elastic cord, and the whole attention of the thief was absorbed in the amusement caused by drawing the bracelet to its full length, and letting it snap. The clatter of the beads seemed to amuse the monkey mightily, and he was so entirely charmed with this novel recreation, that he did not see the approaching keeper. At the sound of his voice, however, down went beads, away went monkey, and the bracelet was soon in the possession of its owner.

The Bruh is an inhabitant of Sumatra, and is often captured when young by the natives, and taught to ascend the tall cocoa-nut palms for the sake of getting the fruit and throwing it down to its master.

GELADA—*Gélada Ruppellii.*

These Baboons are known by their projecting dog-like head, and the manner in which the nostrils are placed at the extremity of the muzzle.

Many of these animals are remarkable for the large mass of hair that grows

GELADA.

upon the shoulders of the adult male, and hangs in a thick mantle over all the upper portions of the body. This hairy cloak is not possessed by the young animals, and is only indicated in the half grown male, and does not reach its full perfection till the creature has attained his majority. In common with all the Dog-headed apes, the GELADA is a native of Africa, and is found in Abyssinia.

THE CHACMA.—*Cynocephalus porcárius.*

The Chacma or Ursine Baboon, is the most familiar and the best known, of all the Dog-headed Baboons, as it is a native of those parts of South Africa which have been colonized from our country.

All the baboons are excellent climbers of trees, as well as accomplished crags-men, and are seldom found very far from trees or rocks; they herd together in great numbers, and they are nearly invincible in their own domains, whether of forest or cliff, bidding defiance to almost every enemy but man.

Although more ready to shun an enemy than to attack, and always preserving the better part of valour, they are terrible foes when they are brought to bay, and turn upon their enemies with the furious energy of despair. Active to a degree, and furnished with powerful limbs, they would be no despicable antagonists were their means of attack limited to hands and feet alone; but when their long sharp

teeth and massive jaws are thrown into the scale, it will be seen that hardly the leopard itself is a more formidable animal.

The teeth are formed in a manner which peculiarly fits them for the mode of attack that is employed by all the baboons. The great canine teeth are long and pointed at their tips, while their inner edge is sharp as that of a knife, and can cut with more effect than many a steel weapon.

Knowing well the power of the terrible armature with which he he is gifted, the enraged baboon leaps upon his foe, and drawing it towards him with his hands and feet, fixes his teeth in its throat until the sharp fangs meet together. He then violently pushes the miserable aggressor from him, so that the keen-edged teeth cut their way through the flesh, and inflicts a wound that is often immediately fatal.

In this manner they repel the attacks of dogs; and woe be to the inexperienced hound who is foolish enough to venture its person within grasp of the baboon's feet or hands.

The Chacma is a most accomplished robber, executing his burglaries openly whenever he knows that he will meet with a formidable opposition, and having recourse to silent craft when there are dogs to watch for trespassers, and men with guns to shoot them.

With such consummate art do these animals plan, and with such admirable skill do they carry out their raids, that even the watchful band of dogs is comparatively useless; and the cunning robbers actually slip past the vigilant sentries without the stirring of a grass blade, or the rustling of a dried twig to give notice to the open ears of the wakeful but beguiled sentries.

In such a case, the mode to which they resort is clever in the extreme.

They know full well, that if a number of their body were to enter the forbidden domain, they could hardly elude the observation or escape the hearing of dogs and men; so they commit the delicate task of entering the enemy's domains to one or two old experienced baboons. These take the lead, and gliding softly past the sentry dogs, find admission by some crevice, or by the simpler mode of climbing over the fence.

Meanwhile the rest of the band arrange themselves in a long line, leading from the scene of operations to some spot where they will be out of danger from pursuit.

All being ready, the venturous leaders begin to pluck the fruit, or to bite off the stalks, as the case may be, and quietly hand the booty to the comrade who is nearest to them. He passes the fruit to a third, who again hands it to a fourth; and thus the spoil is silently conveyed to a distance, in a manner similar to that which is employed in handing water-buckets to a fire-engine. When a sufficient

amount of plunder has been secured, the invading party quietly make their retreat, and revel in security on their ill-gotten goods.

Although on service for the general weal, each individual baboon is not unmindful of his personal interest; and while he hands the booty to his next neighbour, deftly slips a portion into his mouth, much on the same principle that an accomplished epicure, while busily carving for the assembled guests, never loses sight of his own particular predilection, and when he has exhausted the contents of the dish, quietly assumes the portion which he had laid aside.

When young, the Chacma is docile enough, and by its curious tricks affords much amusement to its master and those around it. Not only for amusement, however, is this animal detained in captivity, but its delicate natural instincts are sometimes enlisted in the service of its master. It displays great ability in discovering the various roots and tubers on which it feeds, and which can also be used as food for man; and in digging, like Caliban, with his long nails, pignuts.

A more important service is often rendered by this animal than even the procuration of food; and that is, the hunting for, and almost unfailing discovery of, water.

One of these animals, personally known to Captain Drayson, was a great practical jester, and was fond of terrifying the Kaffir women by rushing at them open mouthed, catching them by their ancles, and mowing at them with extravagant grimaces, as if he meant to eat them up bodily. Sometimes a dog would be set at him while thus employed, and change the aspect of affairs in a moment. The pursuer then became the pursued, and quitting his prey, made for the nearest tree, up which he scuttled, and settled himself among the branches, just so high as to be out of reach of the dog's jaws, and just so low as to give hopes of success by a higher than ordinary leap. There he would sit as if there was no such being in the world as a dog, and giving himself up to the contemplation of the surrounding scenery, or the aspect of the sky, would leisurely pursue his train of thought until the dog was tired and went away.

His keenness of sight was remarkable, his eyes possessing powers of distant vision that rivalled the telescope.

In order to prove the powers of the creature's sight, his master made several experiments, by going to so great a distance that the baboon when perched on its pole was barely perceptible to the naked eye, and from thence producing sundry distortions of countenance, and strange attitudes of body. By looking through a telescope, he was able to see that the animal was not only capable of discerning and imitating his gestures, but even the very changes of countenance; so that a grimace on the part of the gallant owner was immediately reproduced, or rather, represented by a grin on the part of the baboon

BABOON.—*Cynocéphalus Babouin.*

The Common Baboon is quite as curious an animal as the Chacma, but as it is not so familiar in a wild state, comparatively little is known of its habits. It associates in large companies; each band being placed under the command of a leader who exercises his dominion over his subordinates.

Like all animals which assemble in flocks, they never rest or move without the protection of certain sentries, which are chosen out of their number, and which keep the most careful watch over the troop to which they belong. The duty is

anything but an agreeable one, and its labours are equally divided among the community, each competent member taking that task upon himself in his own turn.

When they make an attack upon a field or a plantation, they always guard against surprise by posting sentries on elevated spots, and, knowing that due notice will be given if any suspicious object be seen or heard, they devote all their energies to the congenial business of theft, while the sentries remain at their posts, never daring to withdraw their attention from the important charge which is committed to them. However, the sentinels do not entirely lose the benefit of all the good things, but take their proper share of the spoil after the thievish band has returned to a place of safety; so that their greatest trial is an exercise of patience of rather a prolonged character.

In their rocky fastnesses, their chief foe is the leopard, and so terrified are they at the very sound of their enemy's voice, that even a very poor imitation of a growl is sufficient to set them flying off as fast as their legs can carry them, while a breath of air that bears upon its wings the least taint of rank odour which exhales so powerfully from the large Felidæ, scatters dire consternation among the assemblage. There is a story of a life saved by means of the ingenuity of a native servant, who, seeing his master beset by a party of angry baboons, quietly stepped behind a rock, and imitated the growl of a leopard with that startling fidelity that is so general an accomplishment among savage tribes.

The leopard seldom attacks an adult baboon, not caring to risk its claws and fangs against the hands and teeth of so powerful an opponent. Much less does it openly venture to assault a band of baboons in hopes of securing one of their number. Its mode of procedure is by slily creeping round their rocky domains, and whipping off one of the young baboons before an alarm is given.

Bold as are these animals, they will not dare to follow a leopard into its den; so that, if their dreaded foe succeeds in once getting clear of their outposts, it may carry off its prey with impunity. The constant dread which the leopard seems to excite in the baboon's mind appears to be occasioned more by the stealthy craft and persevering aggression of the animal, rather than by its physical powers alone.

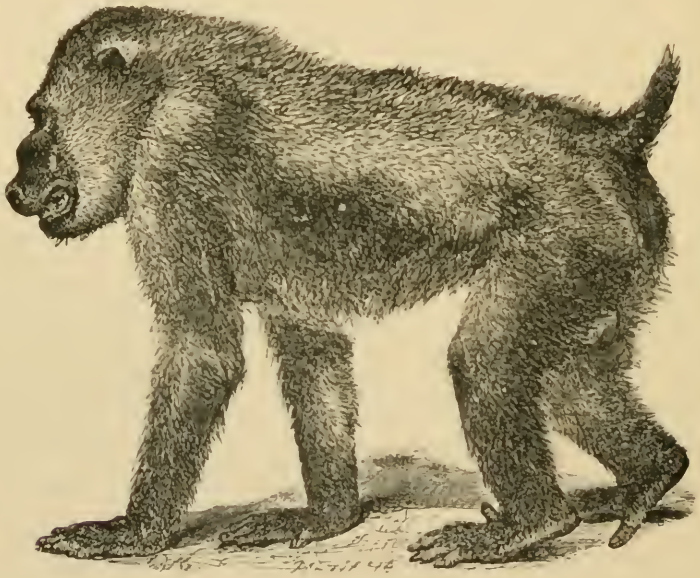
THE MANDRILL.—*Papio Maimon.*

Few animals present a more grotesque mixture of fantastic embellishment and repulsive ferocity than the baboon which is known under the name of Mandrill. The colours of the rainbow are emblazoned on the creature's form, but always in the very spots where one would least expect to see them. In the old male a bright azure glows on each side of the nose, where the snout is widely expanded, and swollen into enormous masses. The surfaces of these curious projections are

deeply grooved, and the ridges are bedizened with the cerulean tint above mentioned. Lines of brilliant scarlet and deep purple alternate with the blue, and the extremity of the muzzle blazes with a fiery red. That all things should be equally balanced, the opposite end of the body is plenteously charged with a ruddy violet, that is permitted to give its full effect, by the pert, upright carriage of the tail.

The general colour of the fur is of an olive brown tint, fading into grey on the under side of the limbs, and the chin is decorated with a small yellow pointed beard. The muzzle is remarkable for a kind of rim or border, which is not unlike the corresponding part in a hog, and is well shown in the engraving. The ears are small, devoid of fur, and of a black colour with a tinge of blue.

The Mandrill is an inhabitant of Guinea.



DRILL.—*Papio Leucophæus.*

THE DRILL, co-native with the Mandrill, of the coast of Guinea, somewhat resembles the female or young male mandrill, and is not of quite so savage and grotesque an aspect as that animal.

Its cheek-bones are not nearly so protuberant as those of the mandrill, nor is

its skin so brilliantly coloured. The upper parts of the body are greener than those of the mandrill, the yellow rings in the hair being more frequent. Its face and ears are of a light polished black, and the palms of the hands and feet are devoid of hair, and of a coppery tinge.

Formerly the Drill was thought to be only a young mandrill, and was so named. But the fact that even after their second teething, the male Drills do not put on the furrowed cheek-bones, or the bright colouring that distinguishes the mandrill, is sufficient to prove that it is a distinct species.

Little is known of its habits when in a state of nature, as it has probably been confounded with the mandrill, and its deeds narrated as if they belonged to the last-named animal.

It is a frequent visitor to England, and lives in tolerably good health. As far as is known, it is much like the mandrill and other baboons in temper, being quiet and docile when young, but subsiding into morose apathy as it becomes older.

The little stumpy tail is very like that of the mandrill, and is covered with short and stiff hair. Its length is not more than two inches even in a full grown male. The Drill is always a smaller animal than the mandrill, and the female much smaller than the male, from whom she differs also in the comparative shortness of her head, and generally paler tint of her fur.

CHAMECK.—*Ateles chameck.*

The American Monkeys are chiefly remarkable for the singular construction of their tails, and the manner in which the nostrils are separated from each other by a wide cartilage.

If the reader will refer to the illustration of the Chameck, he will see that the tail is the most conspicuous member of the animal. For the greater part of its length it is thickly covered with long drooping fur, but the last seven or eight inches are nearly denuded of hair on the upper surface, and entirely so on the lower. Towards the base it is extremely thick, and is furnished with muscles of great strength and marvellous flexibility, destined to aid the member in the performance of those curiously active movements for which these monkeys are so renowned.

The tail of these animals is to them equivalent, and more than equivalent, to a fifth hand. The naked extremity is endowed with so sensitive a surface that it can be applied to most of the uses to which the hand can be put, while the powerful muscles that move it are so strong and lithe that they can exert

CHAMECK.

a singular amount of strength, even so as to suspend the entire weight of the animal.

In ascending trees or traversing the branches, the monkeys continually aid their progress by twining the end of the tail round the neighbouring boughs. Sometimes they even suspend themselves wholly by their tails, and after giving their bodies a few oscillating movements, boldly swing themselves from one branch to another, clearing considerable spaces in the effort. On account of these capabilities, the tail is known by the name of "prehensile."

The spider monkeys can apply the tail to uses far more remarkable than any of those which have been mentioned. With such singularly delicate sense of touch is it furnished, that it almost seems to be possessed of the power of sight, and moves about among the branches with as much decision as if there were an eye in its tip. Should the monkey discover some prize, such as a nest of eggs, or any little dainty, which lies in a crevice too small for the hand to enter, it is in nowise disconcerted, but inserts the end of its tail into the cranny, and hooks out the desired object.

Owing to the great length of limbs and comparatively small dimensions of the hands and body, these creatures are generally known by the name of Spider Monkeys.

The spider monkeys, are very gentle, docile creatures, and easily tamed. One of these creatures, named Sally, was a personal acquaintance of my own, and was really a most engaging creature. Her length of limb was astonishing, and

she could reach objects which seemed to be far out of her grasp. She is singularly slender in build, but is much heavier than would be supposed from the apparent dimensions. Before she reached England, I received the following account of her from her owner, Captain Inglefield, R.N.

On board ship she is not trammeled by chain or rope, but is permitted to range the vessel at her own sweet will. She revels among the rigging, and when she becomes playful, dances about a rope in such a strange manner, and flings her limbs and tail about so fantastically, that the spectators are at a loss to distinguish the arms and legs from the tail. When thus engaged, the name of spider monkey is peculiarly apposite, for she looks just like a great overgrown tarantula in convulsions. During these fits of sportiveness, she stops every now and then to shake her head playfully at her friends, and, screwing up her nose into a point, utters, little, short, soft grunts at intervals. She generally becomes vivacious towards sunset.

There is a curious custom in which she is in the habit of indulging. She likes to climb up the rigging until she reaches a horizontal rope, or small spar, and then, hooking just the tip of her tail over it, will hang at full length, slowly swinging backward and forward, while she rubs each arm alternately from the wrist to the elbow, as if she were trying to stroke the hair the wrong way. She always must needs have her tail round something, and, if possible, will not venture a step without securing herself to some object by the means of that long and lithe member.

Unlike many of her relatives, who are inveterate thieves, and with the tips of their tails quietly steal objects from which their attention is apparently turned, Sally is remarkably honest, never having stolen anything but an occasional fruit or cake. She is accustomed to take her dinner at her master's table, and behaves herself with perfect decorum, not even beginning to eat until she has obtained permission, and keeping to her own plate like a civilized being. Her food is mostly composed of vegetables, fruit, and sopped bread, although she occasionally is treated to a chicken bone, and appreciates it highly.

In the matter of food she is rather fastidious, and if a piece of too stale bread be given to her, smells it suspiciously, throws it on the floor, and contemptuously ignores its existence. With true monkey instinct, she is capable of distinguishing wholesome from harmful food, and, after she had left the tropical fruits far behind, she accepted at once an apple which was offered to her, and ate it without hesitation.

She was very fond of all wild animals, and made the Newfoundland puppies her particular pets. Shortly after her arrival in England, she was taken to the Zoological Gardens, but did not long survive her change of residence.

MIRIKI.—*Brachýteles hypoxanthus.*

There are several other species belonging to this group of animals, among which may be mentioned the Cayou, or Black Spider Monkey, the Chuva, the Brown Coaita, and others. The habits, however, of all these creatures are very similar, and therefore only one more example will be described. This is the Miriki, or Mono, as some authors call it.

The hair of this species is very thick, short, and furry, of a tolerably uniform brown tint over the head, body, and limbs, the paws being much darker than the rest of the animal. There is a slight moustache formed by a continuation of the long black hairs which are scantily planted on the chin and face. On account of the thick coating of fur with which the skin of this animal is covered, water has but little effect upon it. Knowing this wet-repellent property, the hunters of

Brazil are accustomed to make the skin of the Miriki into cases wherewith to cover the locks of their guns in rainy days.

This species is easily distinguishable from its companions by the presence of a better developed thumb on the fore-paws than falls to the lot of spider monkeys generally.

ARAGUATO, OR URSINE HOWLER.—*Mycétes ursínus.*

Several species of Howling Monkeys are known to science, of which the Araguato as it is called in its own land, the Ursine Howler as it is popularly named in this country, is, perhaps, the commonest and most conspicuous. It is larger than any of the New World monkeys which have hitherto been noticed; its length being very nearly three feet when it is fully grown, and the tail reaching to even a greater length.

The colour of the fur is a rich reddish-brown, or rather bay, enlivened by a golden lustre when a brighter ray of light than usual plays over its surface. The beard which so thickly decorates the chin, throat, and neck, is of a deeper colour than that of the body.

Few animals have deserved the name which they bear so well as the Howling Monkeys. Their horrid yells are so loud, that they can be heard plainly, although

the animals which produce them are more than a mile distant. Throughout the entire night their cries resound, persecuting the ears of the involuntarily wakeful traveller with their oppressive pertinacity, and driving far from his wearied senses the slumber which he courts, but courts in vain. As if to give greater energy to the performance, and to worry their neighbours as much as possible, the Araguatos have a fashion of holding conversations, in which each member does his best to overpower the others.

SAI, OR WEEPER—*Cebus Capucinus*

The CAPUCIN monkeys are active, lively and blithe little creatures, and are frequently caught and domesticated. They seem to be affectionate in their nature. A good example of these monkeys is the SAI, or WEEPER MONKEY.

As is the case with all the Capucins, it is an inhabitant of the Brazils, and as lively as any of its congeners. The tails of the Capucins are covered with hair, but are still possessed of prehensile powers. All these monkeys seem to be possessed of much intelligence, and their little quaint ways make them great favourites with those who watch their motions.

Their food is chiefly of a vegetable nature, but they are fond of various insects, sometimes rising to higher prey, as was once rather unexpectedly proved. A linnet was placed, by way of experiment, in a cage containing two Capucin monkeys, who pounced upon their winged visitor, caught it, and the stronger of the two devoured it with such avidity that it would not even wait to pluck off the feathers. Eggs are also thought to form part of the Capucin's food.

CACAJAO.—*Pithécia Melanocéphala.*

The Cacajao is a curious little creature, remarkable for its black head and short tail.

The head of this creature is not only remarkable for its black hue, but for its shape, which instead of being rounded, as is the case with most monkeys, is slightly flattened at the temples. The general colour of the fur is a bright yellowish-brown, the only exceptions being the head and fore paws, which are black. The ears are devoid of hair, are very large in proportion to the size of the animal, and have something of the human character about them. The length of the head and body is said to reach two feet in full-grown animals, and the tail is from three to five inches long, according to the size of the individual.

Very little is known of the habits of the Cacajao in a wild state, but in captivity it bears the character of being a very inactive and very docile animal. Fruits seem to be its favourite diet, and when eating them it has a habit of bending over its food in a very peculiar attitude. It is not so adroit in handling objects as are the generality of monkeys, and seems to feel some difficulty in the management of its long and slender fingers, so that its manner of eating is rather awkward than otherwise.

MARMOSET.—*Jacchus Vulgáris.*

The beautiful little creature which is so well known by the name of the Marmoset, or Ouistiti, is a native of Guiana and Brazil, and is very attractive

in its manners and appearance. The fur is long and exquisitely soft, diversified with bold stripes of black upon a ground of white and reddish-yellow. The tail is long and full; its colour is white, encircled with numerous rings of a hue so deep that it may almost be called black. A radiating tuft of white hairs springs from each side of the face, and contrasts well with the jetty hue of the head.

On account of the beauty of its fur, and the gentleness of its demeanour when rightly treated, it is frequently brought from its native land, and forced to lead a life of compelled civilization in foreign climes. It is peculiarly sensitive to cold and always likes to have its house well furnished with soft and warm bedding, which it piles up in a corner, and under which it delights to hide itself.

The Marmosets do not seem to be possessed of a very large share of intelligence, but yet are engaging little creatures if kindly treated. They are very fond of flies and other insects, and will often take a fly from the hand of the visitor. One of these animals with whom I struck up an acquaintance, took great pleasure in making me catch flies for its use, and taking them daintily out of my hand. When he saw my hand sweep over a doomed fly, the bright eyes sparkled with eager anticipation; and when I approached the cage, the little creature thrust its paw through the bars as far as the wires would permit, and opened and closed the tiny fingers with restless impatience. It then insinuated its hand among my closed fingers, and never failed to find and to capture the imprisoned fly.

RUFFED LEMUR.—*Lemur Macáco.*

The Lemurs are less monkey-like than any of the preceding animals, and approach nearer the peculiar form of quadrupeds. It is only on a close examination of the feet that the monkey-like structure is seen, for the head of all the Lemurs is entirely unlike the usual monkey head, and even in the skull the distinction is as clearly marked as in the living being. Sharp, long, and pointed, the muzzle and jaws are singularly fox-like, while the general form of these animals, and the mode in which they walk, would lead a hasty observer to place them among the true quadrupeds. Yet, on a closer examination, the quadrumanous characteristics are seen so plainly, that the Lemurs can but be referred to their proper position among, or rather at the end of, the monkey tribe.

The word Lemur signifies a night-wandering ghost, and has been applied to this group of animals on account of their nocturnal habits, and their stealthy, noiseless step, which renders their progress almost as inaudible as that of the unearthly beings from whom they derive their name.

RUFFED LEMUR.

The Ruffed Lemur is one of the handsomest of this family, challenging a rivalship even with the ring-tailed Lemur in point of appearance.

The texture of the fur is extremely fine, and its colour presents bold contrasts between pure white and jetty blackness, the line of demarcation being strongly defined. The face of the Ruffed Lemur is black, and a fringe of long white hairs stands out like a ruff round the face, giving to the creature its very appropriate title.

As is the case with all the Lemurs, it is a native of Madagascar and of the adjacent islands, and seems to take the place of the ordinary monkeys. Of all the Lemurs this species is the largest, its size equalling that of a moderately grown cat. Its voice is a sepulchral, deep roar, peculiarly loud, considering the size of the animal, and can be heard at a great distance in the stilly night. As the Lemurs delight in gathering together in large companies, the effect of their united

voices is most deafening. The eyes are furnished with a transverse pupil, which dilates as darkness draws on, enabling the creature to see even in the dark night, and to make search after their daily, or rather their nightly food.

This species is timid at the presence of man, and hides itself at the sound of his footsteps. But if pursued and attacked, it takes instant courage from despair, and flinging itself boldly on its antagonist, wages fierce battle. In the conflict, its sharp teeth stand it in good stead, and inflict wounds of no trifling severity.

It is easily tamed, and although it is not a very intellectual animal, it displays much gentle affection, readily recognising its friends, and offering itself for their caresses, but avoiding the touch of those with whom it is not acquainted, or to whom it takes a dislike. It is very impatient of cold, and likes to sit before a fire, where it will perch itself for an hour at a time without moving, its attention solely taken up by the grateful warmth.

It is an active creature, being able to leap to some distance, and always attaining its mark with unfailing accuracy. While leaping or running rapidly, the tail is held in a peculiarly and graceful attitude, following, indeed Hogarth's line of beauty.

There are several species of Lemurs, such as the Ring-tailed Lemur, a beautiful creature, remarkable for its long full furred tail, covered with rings of black and white; the white-footed Lemur, and the Red Lemur. They are nocturnal in their habits, sleeping during the day, coiled up in strange shapes, and not to be removed out of their slumber except by violence or hunger. Even when they have aroused themselves from their repose and run about for a little while, they soon cease from their unwonted exertion, and again sink to rest.

SLENDER LORIS.—*Loris Grácilis.*

The Loris are very curious little creatures, and are found in Sumatra, Java, and Ceylon. In every respect they similar to the Lemurs, but may be readly distinguished from them by the sharp muzzle and total absence of the tail.

The Slender Loris is a small animal, measuring only nine inches in length, and possessed of limbs so delicately slender, as to have earned for it its popular name. Its colour is grey, with a slight rusty tinge, the under portions of the body fading into white. Round the eyes, the fur takes a darker hue, which is well contrasted by a white streak running along the nose.

SLENDER LORIS.

Small though it be, and apparently without the power to harm, it is a terrible enemy to the birds and insects on which its feeds.

Night, when the birds are resting with their heads snugly sheltered by their soft feathers, is the time when the Loris awakes from its daily slumbers, and stealthily sets forth on its search. Its large round eyes blaze in the dusky gloom like two balls of phosphorescent fire, and by the eyes alone can its presence be known. Its movements are so slow and silent, that not a sound falls on the ear to indicate the presence of a living animal.

Alas for the doomed bird that has attracted the fiery eyes of the Loris! With movements as imperceptible and as silent as the shadow on the dial, paw after paw is lifted from its hold, advanced a step and placed again on the bough, until the destroyer stands by the side of the unconscious victim. Then, the hand is raised with equal silence, until the fingers overhang the bird and nearly touch it. Suddenly, the slow caution is exchanged for lightning speed, and with a movement so rapid that the eye can hardly follow it, the bird is torn from its perch, and almost before its eyes are opened from slumber, they are closed for ever in death.

AYE-AYE.—*Cheiromys Madagascariensis.*

The Aye-Aye of Madagascar is one of the rarest of animals, and is very curiously formed, the teeth being shaped much like those of the rats and mice, while its paws are those of the monkey. Even in Madagascar it is extremely scarce, appearing to be limited to the western portions of the country and to have escaped even the quick eyes of the natives. Sonnerat, the naturalist, was the first to discover it, and when he showed his prize to the natives, they exhibited great astonishment at the sight of an unknown animal, and their exclamations of surprise are said to have given the name of Aye-aye to the creature. The name "Cheiromys," signifies "Handed Mouse," and is given to the animal because it bears some resemblance to a large mouse or rat which is furnished with hand-like paws instead of feet.

It is probable that the natural food of the Aye-aye, like that of the preceding animals, is of a mixed character, and that it eats fruit and insects indiscriminately. In captivity it usually fed on boiled rice, which it picked up in minute portions. But in its wild state it is said to search the trees for insects as well as fruits, and to drag their larvæ from their concealment by means of its delicate fingers. Buds

and various fruits are also said to be eaten by this animal—possibly the buds may contain a hidden grub, and the entire flower be eaten for the sake of the living creature which it contains, as is the case with many a bud that is plucked by small birds in this country.

It is a nocturnal animal like the Galagos and Lemurs, and seeks its prey by night only, spending the day in sleep, curled up in the dark hollow of a tree, or in some similar spot, where it can retire from view and from light.

VAMPIRE BAT.—*Vampyrus Spectrum.*

The Bats, or Wing-Handed Animals, are remarkable for the enormous size of their fore paws, and the manner in which the skin is extended between the joints, so as to form wings. There are very many species of Bats found in all parts of

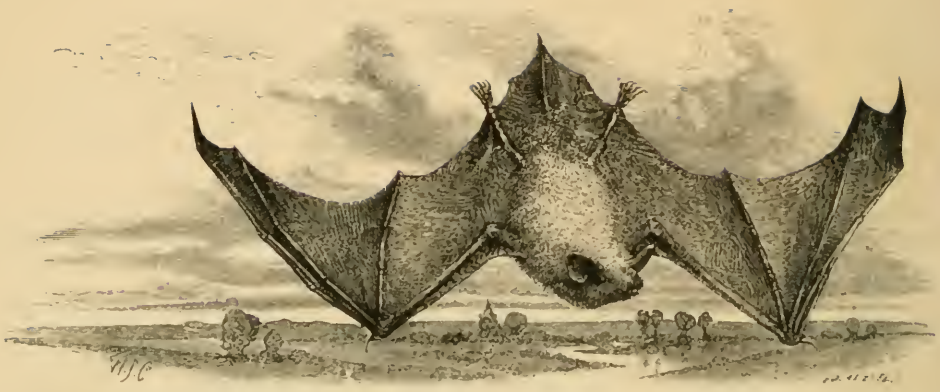
the world, some of them feeding upon fruit and vegetable substances, but the greater number being insect-eaters, and catching their prey on the wing with great adroitness. They are nocturnal in their habits; hiding in some dark retreat during the day, and being only seen on the wing at night. If a poor Bat should attempt to fly about in the daytime, its eyes are quite dazzled by the light, and it is unable to direct its movements.

The VAMPIRE BAT is a native of South America, and is celebrated for its habits of attacking sleeping men and animals and sucking their blood during sleep. These animals are very common in their own country, and are very annoying to travellers.

When they direct their attacks against mankind, the Vampires almost invariably select the foot as their point of operation, and their blood-loving propensities are the dread of both natives and Europeans. With singular audacity, the bats even creep into human habitations, and seek out the exposed feet of any sleeping inhabitant who has incautiously neglected to draw a coverlet over his limbs.

When they attack quadrupeds, they generally fix themselves on the shoulders and flanks of the animal, and inflict wounds sufficiently severe to cause damage unless properly attended to. It is quite a common occurrence that when the cattle are brought from the pastures wherein they have passed the night, their shoulders and flanks are covered with blood from the bites of these blood-loving bats.

It was at one time supposed that the Vampire drew so large a quantity of blood from the sleeper, that it entirely exhausted the supply of vital fluid, and caused him to sink unconsciously into death. This notion arose from the curious fact that the creature is so wonderfully adroit in its proceedings, that it is able to bite through the skin of its prey, and to abstract the blood without awakening him from his slumbers. But it is now known that no great harm is done by the Bat, excepting a little weakness from loss of blood.



NOCTULE OR GREAT BAT.—*Noctulinia altivolans.*

The Noctule or Great Bat, is an inhabitant of England, and is by no means common. It is not a pleasant animal to handle, for it gives forth a most unpleasant odour. Its cry is sharp and piercing, thereby producing a curious analogy with the swifts, which are popularly known by the name of "Jacky-screamers."

On account of the great height at which this bat loves to fly, it has been named "altivolans," or "high-flying," and seems to be among bats what the swift is among the swallow tribe.

It is curious, by the way, to mark the analogy that exists between the swallows and bats. Each of these groups loves the air, and is mostly seen on the wing. Their food consists of the flying insects, which they chase by their exquisite command of wing; and it will be noticed that, as soon as the swallows retire to rest at dusk, after clearing the air of the diurnal insects, the bats issue from their homes, and take up the work, performing the same task with the insects of night, as the birds with those of day. Then, as the dawn breaks, out come the swallows again, and so they fulfil their alternate duties.

The length of this about from nose to tail is but three inches, and the spread of its wings measures nearly fourteen inches. There are about fifteen or sixteen kinds of British Bats.

LION.—*Leo Bárbarus.*

The great family of the Cat Tribe are remarkable for their powerful jaws and large fangs, the extreme grace and activity of their movements, and the manner in which the sharp hooked claws of the feet are drawn back when not in use, and thrust forward when needed for action. All the Lions, Tigers, and

Leopards, belong to this family, members of which are found in almost every part of the world.

The Lion stands at the head of the Cat Tribe, holding his regal position on account of his great size, strength, and beauty. There are several kinds of Lions, the best known of which is the Lion of Southern Africa.

This noble animal is found in nearly all parts of Southern Africa, where the foot of civilized man has not stayed its wanderings. Before the tread of the white man, the Lion shrinks unwillingly, haunting each advanced post for a time, but driven surely and slowly backward, as the human intellect gains opportunity for manifesting its supremacy over the lower animals. So entirely does man sweep the wild beasts from his presence that even in the Cape colony, a living Lion is just as great a rarity as in England, and there are very few of the colonists who have ever beheld a living Lion except when pent in a cage.

The colour of the Lion is a tawny yellow, lighter on the under parts of the body, and darker above. The ears are blackish, and the tip of the tail is decorated with a tuft of black hair. The tuft serves to distinguish the Lion from any other member of the cat tribe. The male Lion, when full grown, is furnished with a thick and shaggy mane of very long hair, which falls from the neck, shoulders, and part of the throat and chin, varying in tint according to the age of the animal, and possibly according to the locality which it inhabits. The Lioness possesses no mane, and even in the male Lion it is not properly developed until the animal has completed his third year.

When fully grown, the male Lion measures some four feet in height at the shoulder, and about eleven feet in total length. These measurements are only applicable to the noble animals which have passed their lives in the free air of their native land, and have attained their majority with limbs unshackled and spirits unbroken.

The Lioness is a smaller animal than her mate, and the difference of size appears to be much greater than really is the case, because she is devoid of the thick mane which gives such grandeur and dignity to her spouse. Although smaller in size, she is quite as terrible in combat; and indeed, the Lioness is ofttimes a foe much more to be dreaded than the Lion. When she has a little family to look after, she is a truly fearful enemy to those who cross her path, assuming at once the offensive, and charging the intruders with a fierce courage that knows no fear and heeds no repulse.

It has often been said that the Lion is a noble and chivalrous animal, disdaining to take his prey without open assault, and never condescending to feed upon any creature that he has not himself killed. This is however quite a mistake, for as a general rule, the Lion is no open foe. He does not come boldly out on the

plain and give chase to his prey, for he is by no means swift of foot, and, as has already been mentioned, has no idea of running into danger without adequate cause. He can make tremendous leaps, and with a single blow from his terrible paw can crush any of the smaller animals. So he creeps towards his intended prey, availing himself of every bush and tree as a cover, always taking care to advance against the wind, so that the pungent feline odour should give no alarm, and when he has arrived within the limits of his spring, leaps on the devoted animal and strikes it to the ground.

This mode of action gives a clue to the object of the fear-instilling roar which has made the Lion so famous.

As the Lion obtains his prey by stealth, and depends for nutrition on the success of his hunting, it seems strange that his voice should be of such a nature as to inspire with terror the heart of every animal which hears its reverberating thunders. Yet it will be seen, that the creature could find no aid so useful as that of his voice.

If the Lion has been prowling about during the evening hours, and has found no prey, he places his mouth close to the earth, and utters a terrific roar, which rolls along the ground on all sides, and frightens every animal which may chance to be crouching near. Not knowing from what direction the fearful sound has come, they leave their lairs, and rush frantically about, distracted with terror and bewildered with the sudden arousing from sleep. In their heedless career, one or two will probably pass within a convenient distance of the lurking foe.

As to the supposed habit of restricting itself to prey which it has itself killed, it is the constant practice of those who hunt the Lion, to shoot an antelope or some such animal, and leave it near a water spring, knowing well that the Lion will come and gorge itself with the food, that has cost him so little trouble.

MANELESS LION OF GUZERAT.—*Leo Goojrattensis.*

Sometimes the Lion takes to killing mankind, and becomes the terror of the villages, among which he prowls nightly and often by day, ever ready to pounce upon any unfortunate inhabitant that may pass near his lurking place.

It is supposed by those who have had much experience of the leonine character, that the terrible "man-eating" Lions owe their propensity for human flesh to the indolence of their character or the infirmity of their frame, and not to their superior activity and courage. Unwilling, or unable, to expend strength

MANELESS LION.

and patience in the pursuit of the swift-footed antelope or powerful buffalo, the Lion prowls about the villages, thinking to find an easy prey in the man, woman, or child that may happen to stray from the protecting guardianship of the kraal and its dogs. Unarmed, man is weaker of limb, slower of foot, and less vigilant of senses than any of the wild animals, and therefore is a victim than can be slain without much trouble.

A curious property connected with the Lion's tooth is worthy of notice. It has happened that, when a man has been bitten by a Lion, and escaped from its fangs, he has long felt the after effects of the injury, and this in a singular

manner. Although the wound has healed kindly, and to all appearance has left no evil results except the honourable scar, yet that wound has broken out afresh on the anniversary of the time when it was inflicted. There is probably some poisonous influence upon the Lion's tooth by which this effect is produced, for it has been recorded that two men have been attacked by the same Lion, one of whom, who was bitten upon his bare limb, suffered from the annual affliction, while the other, whose limb was protected by his coat, felt no after inconvenience of a similar nature from the bite of the same animal.

The young of the Lion are various in number, sometimes amounting to three or four at a birth, thus entirely contradicting the well-known fable of the Lioness and Fox. For some time the young Lion cubs present a curious appearance, their fur being faintly brindled in a manner very similar to that of the tiger, or, to give a more familiar illustration, resembling the coat of a tabby cat, very indistinctly marked upon a light tawny ground. These faint brindlings are retained for some months, when they gradually fade into the deeper brown which tinges the tawny fur, and after awhile become wholly merged in the darker hue. I have observed a similar absorption of the brindled markings in a kitten. In its earliest youth, it was of a lightish brown, marked with tolerably defined stripes; but as it grew older, the dark streaks gradually became more faint, and, when the animal was about three months old, vanished entirely.

A cub-lion is quite as playful an animal as a kitten, and is just as ready to romp with any one who may encourage its little wanton humors. Only it is hardly so safe a playfellow, for the very small Lion is as large as a very big cat, and sometimes becomes rather unpleasantly rough in its gamesomeness. It has no idea of the power of its stroke, and if it should deal a playful blow with its claws protruded, is apt to do damage which it never intended.

The weight of a Lion-cub is extraordinary in comparison with its size. I have personally tested the weight of several cubs, and was surprised at the massive build of the little creatures. Their bones are very large, and the muscular system very solid, so that a cub which about equals a large cat in actual measurement, far exceeds that animal in weight. The growth of the young Lion is very slow, three or four years elapsing before he can lay claim to the full honours of Lionhood, and shake his tawny name in conscious strength.

The animal which is represented in the preceding page is the Maneless Lion of Asia. This animal possesses a very scanty allowance of that long heavy mass of hair which decorates the African Lion. All Lions may be distinguished from any other of the cat tribe by the black tuft of hair at the end of the tail

TIGER.—*Tigris Regalis.*

Upon the African continent, the lion reigns supreme, sole monarch over the feline race. But in Asia his claims to undivided royalty are disputed by the Tiger, an animal which equals the lion in size, strength, and activity, and certainly excels him in the elegance of its form, the grace of its movements, and the beauty of its fur. The range of the Tiger is not so widely spread as that of the Lion, for it is never found in any portions of the New World, nor in Africa, and, except in certain districts, is but rarely seen even in the countries where it takes up its residence. Some portions of country there are, which are absolutely infested by this fierce animal, whose very appearance is sufficient to throw the natives into a state of abject terror.

In its colour the Tiger presents a most beautiful arrangement of markings and contrast of tints. On a bright tawny yellow ground, sundry dark stripes are

placed, arranged, as may be seen by the engraving, nearly at right angles with the body or limbs. Some of these stripes are double, but the greater number are single dark streaks. The under parts of the body, the chest, throat, and the long hair which tufts each side of the face, are almost white, and upon these parts the stripes become very obscure, fading gradually into the light tint of the fur. The tail is of a whiter hue than the upper portions of the body, and is decorated in like manner with dark rings.

So brilliantly adorned an animal would appear to be very conspicuous among even the trees and bushes, and to thrust itself boldly upon the view. But there is no animal that can hide itself more thoroughly than the Tiger, or which can walk through the underwoods with less betrayal of its presence.

The vertical stripes of the body harmonize so well with the dry, dusky jungle grass among which this creature loves to dwell, that the grass and fur are hardly distinguishable from each other except by a quick and experienced eye. A Tiger may thus lie concealed so cleverly, that even when crouching among low and scanty vegetation, it may be almost trodden on without being seen. The step, too, is so quiet and stealthy, that it gives no audible indication of the creature's whereabouts, and the Tiger has, besides, a curious habit of drawing in its breath and flattening its fur, so as to reduce its bulk as far as possible. When a Tiger thus slinks away from the hunters or from any dreaded danger, it looks a most contemptible and cowardly creature, hardly to be recognised in the fiery beast, which, when driven to bay, rushes, regardless of danger, with fierce yells of rage and bristling hair, upon the foremost foe.

The Tiger is very clever in selecting spots from whence it can watch the approach of its intended prey, itself being crouched under the shade of foliage or behind the screen of some friendly rock. It is fond of lying in wait by the side of moderately frequented roads, more particularly choosing those spots where the shade is the deepest, and where water may be found at hand wherewith to quench the thirst that it always feels when consuming its prey. From such a point of vantage it will leap with terrible effect, seldom making but above a single spring, and, as a rule, always being felt before it is seen or heard.

In the districts where these terrible animals take up their abode, an unexpected meeting with a Tiger is by no means an uncommon event. While engaged in hog-spearing, the sportsmen have many times come suddenly upon a Tiger that was lying quite composedly in the heavy "rhur" grass from which the hog had started. In such cases, the terror of the native horses is excessive, for their dread of the Tiger is so great, that the scent of a Tiger's presence, or the sight of a dried skin, is sufficient to set them plunging and kicking in their attempts to escape from the dreaded propinquity. One horse, which had been terrified by a

Tiger, could not afterwards endure the sight of any brindled animal whatever, and was only restored to ordinary courage by the ingenious device of his master, who kept a brindled dog in the same stable with the horse until the poor beast became reconciled to the hateful striped fur.

The chief weapons of the Tiger are his enormous feet, with their sharp sickle-like talons, which cut like so many knives when the animal delivers a blow with his powerful limbs. Even were the talons retracted, the simple stroke of that sledge-hammer paw is sufficient to strike to the ground as large an animal as an ox; while, if the claws lend their trenchant aid to the heavy blow of the limb, the terrible effects may be imagined.

Besides the severity of the wound which may be inflicted by so fearful a weapon, there are other means of destruction that lie hid in the Tiger's claws. From some cause or other,—it may be presumed on account of some peculiar manner in which the claws affect the nervous system,—even a slight wound has often been known to produce lockjaw, and to destroy the victim by the effects of that fearful disease. It may be, that the perturbation of mind caused by the attack of the Tiger, may have some hand in the matter. Captain Williamson, an officer of twenty years' experience in Bengal, states that he never knew a person to die from the wounds inflicted by a Tiger's claws without suffering from lockjaw previous to death; and he adds, that those cases which appeared the least alarming were the most suddenly carried off.

JUNGLA.

The cruel sports which delight the Oriental monarchs are familiar to all students of the Oriental character, who have found an admirable subject of contemplation in the last monarch who has ruled, or pretended to rule, the great kingdom of Oude. All kinds of animals were kept by this sensualist, simply for the purpose of fighting each other, and among the most celebrated of these warlike animals was the magnificent Tiger known by the name of Jungla.

This splendid animal has been brought to England, and I have been fortunate enough to procure a portrait, drawn from the living creature.

"Jungla" is one of the finest, if not the very finest Tiger that has ever set foot on English ground, and even when penned in the strait limits of a wooden cage that would not permit his noble head to be raised to its full height, and only gave room for a single short step backwards and forwards, his grand proportions were most striking. His present age is about five years.

In height he is about four feet, and the relative proportions can be judged from

JUNGLA.

the illustration. The total length of the animal is said, by his keeper, to be thirteen feet six inches, and in girth he measures four feet eight inches.

He has been matched against many antagonists, and always came off victorious in the fight, whether his opponent were a strong-horned and hard-headed buffalo, or a Tiger like himself. The last Tiger to which he was opposed was killed in fifteen minutes.

The Tiger is a capital swimmer, and will take to the water with perfect readiness, either in search of prey, or to escape the pursuit of enemies.

It has been known to carry its aquatic audacity to such an extent, as to board a vessel, and by its unexpected advent, to cause an involuntary mutiny among the crew. Some jumped into a boat that was being towed astern, others leaped overboard, and sought safety in swimming, while others fled into the cabin, and

barricaded the doors thereof. The Tiger, meanwhile, was left in possession of the vessel, but not comprehending the use of a rudder, he soon drove the vessel ashore, and springing to land, he indulged in a few growls at the occupants of the boat, and then disappeared in the jungle.

The Tiger swims rather high in the water, and therefore affords a good mark to those who are quick of aim. His natatory abilities are by no means small, and while swimming he can strike out with his paws most effectively, inflicting deep wounds wherever his outspread talons make good their aim. So cunning is the animal, that if there should be no cause for hurry, it will halt on the river's brink, and deliberately put its paw into the water, so as to ascertain the force of the stream. The point being made clear, it proceeds either up or down the river, as may best suit its purpose, and so makes allowance for the river stream, or the ocean tide.

In India the Tiger is often hunted by sportsmen who are seated upon elephants, and who seek the creatures in the depths of the jungle. This mode of hunting is not a very dangerous one, as the sportsmen are perched upon the backs of the elephants, and are provided with a whole battery of loaded guns, which they walk off and fire in succession. Even against these disadvantages the tiger has been known to make head, when once driven to bay, and has inflicted severe wounds upon its persecutors before it has been finally killed.

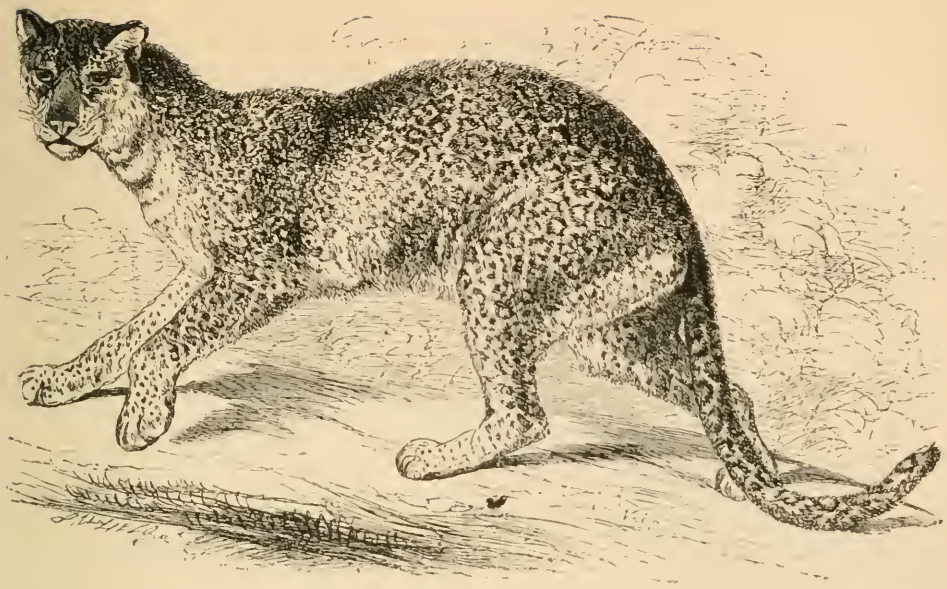
Lately, hunters have gone boldly on foot into the jungle, and boldly matched themselves against the terrible brute.

Mr. Rice, in his interesting history of his hunting exploits, has given some curious accounts of the Tiger and its habits.

Many tales are told of the Tiger and its ferocious daring. It has often been known to leap on the roof of a native hut, tear up the slight covering with its claws, and leap into the room below. However, when a Tiger acts in this manner, the tables are generally turned, for the noise made by the scratchings and clawings on the roof give warning for the inhabitants to make their escape by the door, and bar the entrance behind them. It is not so easy to jump out of the house as into it, and in consequence, the neighbours speedily change the course of events by getting on the roof in their turn, and shooting the burglarious quadruped through the opening which its own claws had made.

LEOPARD.—*Leopardus Várius.*

Unlike the Tiger, which is confined to the Asiatic portion of the world, the Leopard is found in Africa as well as in Asia, and is represented in America by the Jaguar, or, perhaps, more rightly, by the Puma.



LEOPARD.

This animal is one of the most graceful of the graceful tribe of cats, and, although far less in dimensions than the Tiger, challenges competition with that animal in the beautiful markings of its fur, and the easy elegance of its movements. It is possessed of an accomplishment which is not within the powers of the lion or tiger, being able to climb trees with singular agility, and even to chase the tree-loving animals among their familiar haunts. On account of this power, it is called by the natives of India "Lakree-baug," or Tree-Tiger. Even in Africa it is occasionally called a "Tiger," a confusion of nomenclature which is quite bewildering to a non-zoologist, who may read in one book that there are no tigers in Africa, and in another, may peruse a narrative of a tiger-hunt at the Cape. Similar mistakes are made with regard to the American felidæ, not to mention the numerous examples of mis-called animals that are insulted by false titles in almost every part of the globe. For, in America, the Puma is popularly known by the name of the Lion, or the Panther, or "Painter," as the American forester prefers to call it, while the Jaguar is termed the "Tiger."

In Africa, the Leopard is well known and much dreaded, for it possesses a most crafty brain, as well as an agile body and sharp teeth and claws. It commits sad depredation on flocks and herds, and has sufficient foresight to lay

up a little stock of provisions for a future day. A larder belonging to a Leopard was once discovered in the forked branches of a tree, some ten feet or so from the ground. Several pieces of meat were stowed away in this novel receptacle, and a large mass of leaves piled upon them.

In its own country the Leopard is as crafty an animal as our British fox; and being aided by its active limbs and stealthy tread, gains quiet admission into many spots where no less cautious a creature could plant a step without giving the alarm. It is an inveterate chicken-stealer, creeping by night into the hen-roosts, in spite of the watchful dogs that are on their posts as sentinels, and destroying in one fell swoop the entire stock of poultry that happen to be collected under the roof. Even should they roost out of doors they are no less in danger, for the Leopard can clamber a pole or a tree with marvellous rapidity and with his ready paw strike down the poor bird before it is fairly awakened.

The habits of the Indian Leopard are almost identical with those of its African relative. Equally cautious when caution is necessary, and equally bold when audacity is needed; the animal achieves exploits of a similar nature to those which have been narrated of the African Leopard. The following anecdote is a sample of the mixed cunning and insolence of this creature.

An ox had been killed, and the joints had been hung up in a hut, which was close to a spot where a sentry was posted. In the evening the sentry gave an alarm that some large animal had entered the hut. A light was procured and a number of people searched the rooms of which the hut was composed, without discovering the cause of the alarm. They were just about to retire, when one of the party caught sight of a Leopard, which was clinging to the thatched roof immediately above the hooks on which the meat was suspended. No sooner did the animal discover that its presence was known, than it dropped to the floor, laid about it vigorously with its claws, and leaping through the doorway, made its escape, leaving several souvenirs of its visit in various scratches, one of which was inflicted on the sentry who gave the alarm, and kept him to his bed for several weeks.

The strength of the Leopard is marvellous when compared with its size. One of these animals crept by night into the very midst of a caravan, seized two wolf-greyhounds that where fastened to one of the tent pegs, tore up the tent peg to which they were tethered, and although both the dogs were linked together, and were of that powerful breed which is used for the pursuit of wolves and other fierce game, the Leopard dragged them out of the camp and carried them for some three hundred yards through the dense thorny underwood. A pursuit was immediately set on foot, and the dogs rescued from the daring foe.

OUNCE.—*Leopardus Uncia.*

The Ounce, was once thought to be but a longer haired variety of the Leopard, but is now known to be truly a separate species.

In general appearance it bears a very close resemblance to the Leopard, but may be distinguished from that animal by the greater fulness and roughness of its fur, as well as some variations in the markings with which it is decorated. From the thickness of its furry garment, it is supposed to be an inhabitant of more mountainous and colder districts than the Leopard. The rosette-like spots which appear on its body are not so sharply defined as those of the Leopard; there is a large black spot behind the ears. The spots exhibit a certain tendency to form stripes, and the tail is exceedingly bushy when compared with that of a Leopard of equal size. The general colour of the body is rather paler than that of the Leopard, being a greyish white, in which a slight yellow tinge is perceptible, and, as is

usual with most animals, the upper parts of the body are darker than the lower.

The Ounce is an inhabitant of some parts of Asia, and specimens of this fine animal have been brought from the shores of the Persian Gulf. In size, it equals the ordinary leopard of Asia or Africa.

JAGUAR.—*Leopardus Onca.*

The American Jaguar is the largest and most magnificent example of the Cat tribe.

Closely resembling the leopard in external appearance, and in its tree-loving habits, it seems to play the same part in America as the leopard in the transatlantic continents. It is a larger animal than the leopard, and may be easily distinguished from that animal.

In the first place, the tail is rather short in proportion to the size of its owner, and, when the animal stands upright, only just sweeps the ground with its tip. Across the breast of the Jaguar are drawn two or three bold black streaks, which are never seen in the leopard, and which alone serve as an easy guide to the species. The spots, too, with which its fur is so liberally studded, are readily distinguishable from those of the leopard by their shape and arrangement. The leopard spots are rosette-shaped, and their outlines are rounded, whereas those of the Jaguar are more angular in their form. But the chief point of distinction is found in a small mark that exists in the centre of the dark spots which cover the body and sides. In many instances, this central mark is double, and in order to give room for it, the rosettes are very large in proportion to those of the leopard. Along the spine runs a line, or chain, of black spots and dashes, extending from the back of the head to the first foot, or eighteen inches, of the tail.

The colour is not quite the same in all specimens. Many Jaguar skins have an exceedingly rich depth of tinting, and are very highly valued, being worth rather more than three pounds. They are chiefly used for military purposes, such as the coverings of officers' saddles in certain cavalry regiments. Sometimes, a black variety of the Jaguar is found.

In its native land, the Jaguar ranges the dense and perfumed forests in search of the various creatures which fall victims to its powerful claws. The list of animals that compose its bill of fare is a large and comprehensive one, including horses, deer, monkeys, capybaras, tapirs, birds of various kinds, turtles, lizards, and fish; thus comprising examples of all the four orders of vertebrated animals. Nor does the Jaguar confine itself to the vertebrates. Various shell-fish,

JAGUAR.

insects, and other creatures fall victims to the insatiate appetite of this ravenous animal.

This powerful and vigorous animal even ventures to catch and eat the mail-clad turtle. In performing this feat, the Jaguar leaps bodily upon the reptile, and with an adroit turn of its paws, throws the turtle on its back, so that it cannot escape. The Jaguar then tears away the head and neck, and inserting his paw into the orifice thus formed, sweeps out the whole of the interior as neatly

as if it were cut by a knife. Eggs of the turtle are nearly as important to the Jaguar as is the flesh of the mother turtle herself. After inverting the maternal turtle, the Jaguar will leave her in her impotent position, and going to the shore, coolly scoop out and devour the soft leather-covered eggs which she had deposited in the sandy beach in vain hopes of their seasonable development by the warm sunbeams.

Birds are simply struck down by a single blow of the Jaguar's ready paw; and so quick are his movements, that, even if a bird has risen upon the wing, he can often make one of his wonderful bounds, and with a light, quick stroke, arrest the winged prey before it has had time to soar beyond his reach. As to the fish, the Jaguar watches for them at the water side, and as soon as an unfortunate fish happens to swim within reach of the spotted foe, a nimble paw, with outstretched talons, is suddenly thrust forth, and the fish swept out of the water upon dry land.

The favourite food of the Jaguar—when he can get it—is the flesh of the various monkeys. But to catch a monkey is not the easiest task in the world, and in general can only be achieved by leaping upon the prey from a place of concealment, or by surprising the monkeys while sleeping. Sometimes it is fortunate enough to get among a little band of monkeys before they are aware of the presence of the dreaded foe, and then seizes the opportunity of dealing a few fierce strokes of its terrible paw among the partly-awakened sleepers, thus dashing them to the ground, whither it descends to feast at leisure on the ample repast. The fierce hoarse roar of the Jaguar and the yells of terror that come from the frighted monkeys resound far and wide, and proclaim in unmistakeable language the deadly work that is going on among the trees.

The Jaguar is quite as suspicious and cautious an animal as any of the Old World felidæ, and never will make an open attack upon man or beast. Should a solitary animal pass within reach, the Jaguar hesitates not in pouncing upon it; but if a herd of animals, or a party of men, should be travelling together, the Jaguar becomes very cautious, and will dog their steps for many miles, in hopes of securing one of the party in the act of straggling. If the Jaguar should be very hungry indeed, and unable to wait patiently, it will yet temper audacity with caution, and though it will, under urgent necessity, seize one out of the number, it will always choose that individual which is hindermost, hoping to escape with its prey before the companions can come to the rescue. A Jaguar has been known to follow the track of travellers for days together, only daring to show itself at rare intervals.

SERVAL.—*Leopardus Serval.*

The Serval, or "Bosch-katte," *i.e.* "Bush-cat," as it is appropriately termed by the Dutch colonist of the Cape, is an inhabitant of Southern Africa. It is a very pretty animal both with regard to the colour of its fur and the elegant contour of its body. The short, puffy tail, however, rather detracts from the general effect of the living animal. On account of the bold variegations of the Serval's fur, its skin is in great request, and finds a ready sale among furriers, who know it by the name of the Tiger-cat.

The ground colour of the Serval's fur is of a bright golden tint, sobered with a wash of grey. The under portions of the body and the inside of the limbs are nearly white. Upon this ground are placed numerous dark spots, which occasionally unite and form stripes. In number and size they are very variable. The ears are black, with a broad white band across them, and from their width at the base, they give the animal a very quaint aspect when it stands with its head erect.

In disposition, the Serval appears to be singularly docile, and even more playful than the generality of the sportive tribe of cats. It is not a very large animal, measuring about eighteen inches in height, and two feet in length, exclusive of the tail, which is ten inches long, and covered with thick, bushy fur.

PUMA.—*Leopardus cóncolor.*

The Puma is an inhabitant of America, where it is erroneously called the Panther or sometimes the Lion. Its colour is a beautiful pale tawny, fading into pure white below. It is a great climber of trees, and is fond of lying flat upon the branches, where it can hardly be distinguished from the bark, and leaping upon any unfortunate animal that may pass beneath.

Until it has learned from painful experience a wholesome fear of man, the Puma is apt to be a dangerous neighbour. It is known to track human beings through long distances, awaiting an opportunity of springing unobservedly upon a heedless passer-by. A wellknown traveller in American forest lands told me candidly, that he always ran away from "Grizzlys," *i.e.* grizzly bears, but that "Painters were of no account." He said that as long as a traveller could keep a Puma in sight, he need fear no danger from the animal, for that it would not leap upon him as long as its movements are watched.

Although it is not an object of personal dread to the civilized inhabitants of the forest lands, the Puma is a pestilent neighbour to the farmer, committing sad havoc among his flocks and herds, and acting with such consumate craft, that it can seldom be arrested in the act of destruction, or precluded from achieving it. No less than fifty sheep have fallen victims to the Puma in a single night. It is

not, however, the lot of every Puma to reside in the neighbourhood of such easy prey as pigs, sheep, and poultry, and the greater number of these animals are forced to depend for their subsistence on their own success in chasing or surprising the various animals on which they feed. As is the case with the jaguar, the Puma is especially fond of the capybara and the peccary, and makes a meal on many smaller prey than even the latter animal.

PAINTED OCELOT.—*Leopardus pictus.*

The Ocelots, or Tiger Cats are inhabitants of tropical America, where they are very numerous.

In its native woods, the Ocelot seeks its food chiefly among the smaller mammalia and birds, although it is sufficiently powerful to attack and destroy a moderately sized monkey. The monkeys it can chase into the tree branches, being nearly as expert a climber as themselves, but, as it cannot follow the birds into their airy region, it is forced to match its cunning against their wings. As is often done by the domestic cat, the Ocelot can spring among a flock of birds as they rise from the ground, and, leaping into the air, strike down one of them with its rapid paws. But its chief method of obtaining birds is by concealing itself among the branches of a tree, and suddenly knocking them over as they come and settle unsuspiciously within reach of the hidden foe.

The Painted Ocelot is beautifully marked with velvety black stripes and spots upon a rich fawn ground.

The black markings of the tail are of a very deep hue indeed, and occupy a large portion of that member. The throat is greyish white, with one or two very

bold black streaks drawn upon it, extending towards the shoulders. These streaks are branch-like in form, and are very clearly defined. The spots that run along the spine are solid, and of a deep velvety black.

When in captivity, the Ocelot seems to prefer birds and rabbits, or similar creatures, to any other food, and is accustomed to strip the feathers from the bird before it begins its meal. The head appears to be its favourite morsel, and, with the head, the Ocelot generally commences its meal.

MARGAY.—*Leopardus Tigrinus.*

The Margay is a very handsome example of Tiger Cats. The tail is rather more bushy towards the tip than those of the preceding animals, and the spottings are hardly so apt to run into hollow streaks or links. It will be observed that the spots are small and numerous towards the hind quarters.

It is, when caught young and properly treated, a very docile and affectionate animal, although it has been slanderously described as a wholly untameable and ferocious beast. Mr. Waterton mentions, in one of his Essays on Natural History, that when he was in Guiana he possessed a Margay which had been captured by a negro while still a kitten. It was nurtured with great care, and became so fond

of its master that it would follow him about like a dog. Against the rats which inhabited the house, this Margay waged incessant war, creeping about the staircase in search of the destructive rodents, and pouncing with unerring aim on any rat that was unfortunate enough to make its appearance from out of its hiding-place behind the casements.

With an instinctive knowledge of rats and their habits, the Margay was accustomed to choose the closing hours of day as its best hunting time. The creature's assistance in rat-killing was most useful, for, during the owner's absence, the rats had gained entrance to his house, and, finding no one there to oppose their devices, took possession, and roamed about the rooms at their own will. Thirty-two doors had been gnawed through by the chisel-edged teeth of the rats, and many of the valuable window-frames had suffered irreparable damage from these long-tailed pests.

WILD CAT.—*Felis Catus.*

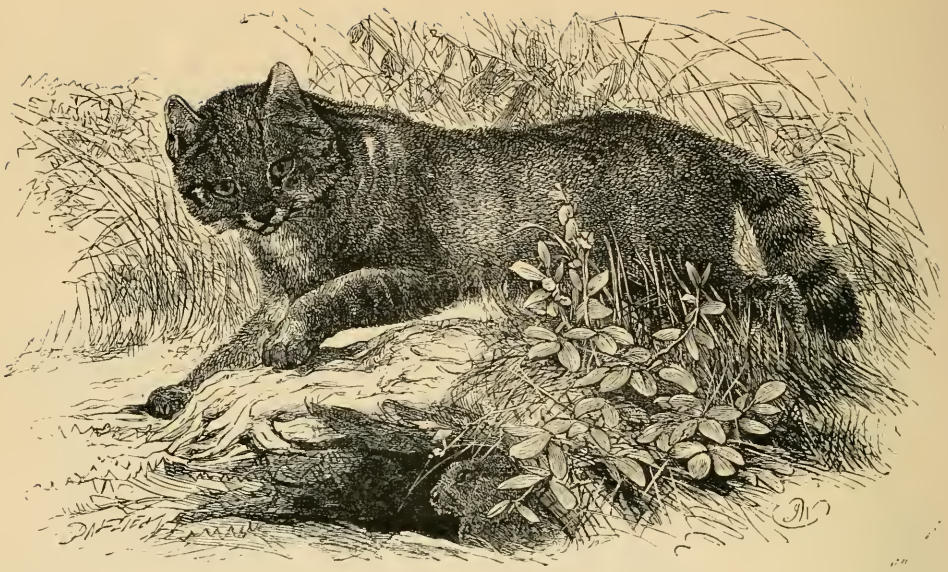
We now leave the Leopard and come to the true Cats.

Few of the Cat Tribe are so widely spread, or so generally known as the Wild Cat. It is found not only in this country, but over nearly the whole of Europe, and has been seen in Northern Asia, and Nepaul.

In England the Wild Cat is almost extinct, having been gradually exterminated by civilization and the conversion of forests and waste land into arable ground. It now very seldom occurs that a real Wild Cat is found even in an English forest, for the creature appears to be driven gradually northwards, finding its last fortress among the bleak and barren ranges of the Scottish hills. In Scotland it still lingers, but its numbers seem to diminish rapidly, and the time is not very far distant when the Wild Cat will be as entirely extinct as the wolf.

The colour of the Wild Cat is altogether a dirty grey, covered with dark streaks and dashes. The tail is shorter, thicker, and blunter than that of the common domestic cat.

The amount of havoc which is occasioned by these creatures is surprising. Mr. Thompson mentions, in his Notes on the Mammalia of Ireland, that a gamekeeper had frequently noticed certain grouse feathers and other *débris* lying about a "water-break" which lay in his beat, and had more than once come upon some of the birds lying without their heads, but otherwise in such excellent condition that they were taken home and served at table. Suspecting the Wild Cat to be the culprit, he set a trap, and captured two of these animals, an old and a young one.



WILD CAT.

The Wild Cat takes up its residence in rocky and wooded country, making its home in the cleft of a rock or the hollow of some aged tree, and issuing from thence upon its marauding excursions. It has even been known to make its domicile in the nest of some large bird. It is rather a prolific animal, and, were it not kept within due bounds by such potent enemies as the gun and the snare, would rapidly increase in numbers. As it is, however, the Wild Cat yields to these foes, and slowly, but surely, vanishes from the land. The number of its family is from three to five, or even six. The female is smaller than the male.

When attacked, the Wild Cat is a most ferocious opponent, as may be seen from Mr. St. John's account of this animal.

The strength and ferocity of the Wild Cat, when hemmed in or hard pressed, are perfectly astonishing. The body when skinned presents quite a mass of sinew and cartilage.

I have occasionally, though rarely, fallen in with these animals in the forests and mountains of this country. Once, when grouse shooting, I came suddenly, in a rough and rocky part of the ground, upon a family of two old ones and three half-grown ones. In the hanging birch woods that border some of the Highland

streams and rocks, the Wild cat is still not uncommon; and I have heard their wild and unearthly cry echo far in the quiet night, as they answer and call to each other. I do not know a more harsh and unpleasant cry than that of the Wild Cat, or one more likely to be the origin of superstitious fears in the mind of an ignorant Highlander.

These animals have great skill in finding their prey, and the damage they do to the game must be very great, owing to the quantity of food which they require. When caught in a trap they fly, without hesitation, at any person who approaches them, not waiting to be assailed. I have heard many stories of their attacking and severely wounding a man, when their escape has been cut off. Indeed, a Wild Cat once flew at me in the most determined manner. I was fishing at a river in Sutherlandshire, and, in passing from one pool to another, had to climb over some rock and broken kind of ground. In doing so, I sank through some rotten heather and moss up to my knees, almost upon a Wild Cat, who was concealed under it.

I was quite as much startled as the animal herself could be, when I saw the wild looking beast so unexpectedly rush out from between my feet, with every hair on her body standing on end, making her look twice as large as she really was. I had three small Skye terriers with me, who immediately gave chase, and pursued her till she took refuge in a corner of the rocks, where, perched in a kind of recess out of reach of her enemies, she stood with her hair bristled out and spitting and growling like a common Cat. Having no weapon with me, I laid down my rod, cut a good-sized stick, and proceeded to dislodge her. As soon as I was within six or seven feet of the place, she sprang straight at my face, over the dogs' heads. Had I not struck her in mid air as she leaped at me, I should probably have got some severe wound. As it was, she fell with her back half broken amongst the dogs, who with my assistance, despatched her. I never saw an animal fight so desperately, or one which was so difficult to kill. If a tame Cat has nine lives, a Wild Cat must have a dozen."

CAT.—*Felis doméstica.*

Our own Domestic Cat, in all its varieties of white, black, tabby, sandy and tortoiseshell, is too familiar an animal to need any detailed description, and we will therefore confine ourselves to some anecdotes of its gentle, loving character and clever nature.

In a chateau of Normandy lived a favourite Cat, which was plentifully supplied with food, and had grown fat and sleek on her luxurious fare. Indeed, so bounte-

ously was her plate supplied, that she was unable to consume the entire amount of provision that was set before her. This superabundance of food seemed to weigh upon her mind; and one day before her dinner-time, she set off across the fields, and paid a visit to a little cottage near the road-side, where lived a very lean Cat. The two animals returned to the chateau in company, and after the feline hostess had eaten as much dinner as she desired, she relinquished the remainder in favour of her friend.

The kind-hearted proprietor of the chateau, seeing this curious act of hospitality, increased the daily allowance of meat, and afforded an ample meal for both Cats. The improved diet soon exerted its beneficial effects on the lean stranger who speedily became nearly as comfortably sleek as her hostess.

In this improved state of matters, she could not eat as much as when she was half-starved and ravenous with hunger, and so after the two Cats had dined there was still an overplus. In order to avoid waste, and urged by the generosity of her feelings, the hospitable Cat set off on another journey, and fetched another lean Cat from a village at a league's distance. The owner of the chateau, being desirous to see how the matter would end, continued to increase the daily allowance, and had at last, as pensioners of his bounty, nearly twenty Cats, which had been brought from various houses in the surrounding country. Yet, however ravenous were these daily visitors, none of them touched a morsel until their hostess had finished her own dinner. My informant heard this narrative from the owner of the chateau.

My own cat has often been observed to act in a similar manner. There was another of her own species inhabiting the town in which I was staying, and the two pussies naturally struck up a friendship. My own cat "Pret," took great compassion on her friend, because she was fed on cats' meat, which she deemed unfit for cat consumption. So she used to steal the offending provisions, bury them in the cellar, and then share her own dinner with her friend. She was also in the habit of summoning a perfect levee of cats in the yard, and entertaining them in an hospitable manner.

Many instances are recorded of misplaced, or rather strangely placed, affection in Cats. They have been known to have taken compassion on all kinds of animals, and to have nourished them as their own. The well-known anecdote of the Cat and the leveret, which she brought up, is too familiar to be repeated in this work, but I have been lately favoured with an account of similar conduct on the part of a Domestic Cat.

A lady possessed a young rabbit, which fell ill and was carried by its mistress to be warmed before the fire. While it was lying on the hearth-rug the Cat entered the room, and seeing the sick rabbit, went up to it and began to lick and

CAT.

fondle it as if it had been one of her own kittens. After a while she took it by the neck, in the usual manner which the Cat adopts for the transportation of her young, and carrying it up stairs laid it in her own bed, which was snugly made up in a bandbox. However, her benevolent wishes were frustrated, for in spite of the attention which she lavished on her *protégée*, the poor little rabbit continued to pine away, and at last died.

Pussy's grief was so distressing that another young rabbit was substituted, and for a while the Cat bore it to her bed, and seemed as affectionate towards the little animal as towards its predecessor. As, however, with all her benevolent intentions she could not feed the rabbit, it was taken to its own mother for the purpose of receiving the nutriment which its foster-mother was unable to give,

Being thus separated from each other, the temporary link that bound the two creatures together appeared to be broken, and the Cat soon forgot her dead and living foster children.

A Cat has been known to take a family of young squirrels, and to nurture them in the place of her own little ones which had been destroyed. This circumstance took place in the vicinity of the New Forest. The squirrels were three in number.

In the eyes of any one who has really examined, and can support the character of the Domestic Cat, she must appear to be a sadly calumniated creature.

She is generally contrasted with the dog, much to her disfavour. His docility, affectionate disposition, and forgiveness of injuries; his reliability of character, and his intellectual powers are spoken of, as truly they deserve, with great enthusiasm and respect. But these amiable traits of character are brought into violent contrast with sundry ill-conditioned qualities which are attributed to the Cat, and wrongly so. The Cat is held up to reprobation as a selfish animal, seeking her own comfort and disregardful of others; attached only to localities, and bearing no real affection for her owners. She is said to be sly and treacherous, hiding her talons in her velvety paws as long as she is in a good temper, but ready to use them upon her best friends if she is crossed in her humours. Whatever may have been the experience of those who gave so slanderous a character to the Cat, my own rather wide acquaintance with this animal has led me to very different conclusions. The Cats with which I have been most familiar have been as docile, tractable, and good-tempered as any dog could be, and displayed an amount of intellectual power which would be equalled by very few dogs, and surpassed by none.

Cats are possessed of a large organ of love of approbation, and are never more delighted than when receiving the praises and caresses of those whom they favour with their friendship. To earn such praises puss will often perform many curious feats, that of catching various animals and bringing them to her owner being among the most common. My own Cat would bring mice to me quite unhurt, and permit me to take the terrified little creatures out of her mouth. She appeared not to care what happened to her mice, only looking for her reward of caresses and laudatory words.

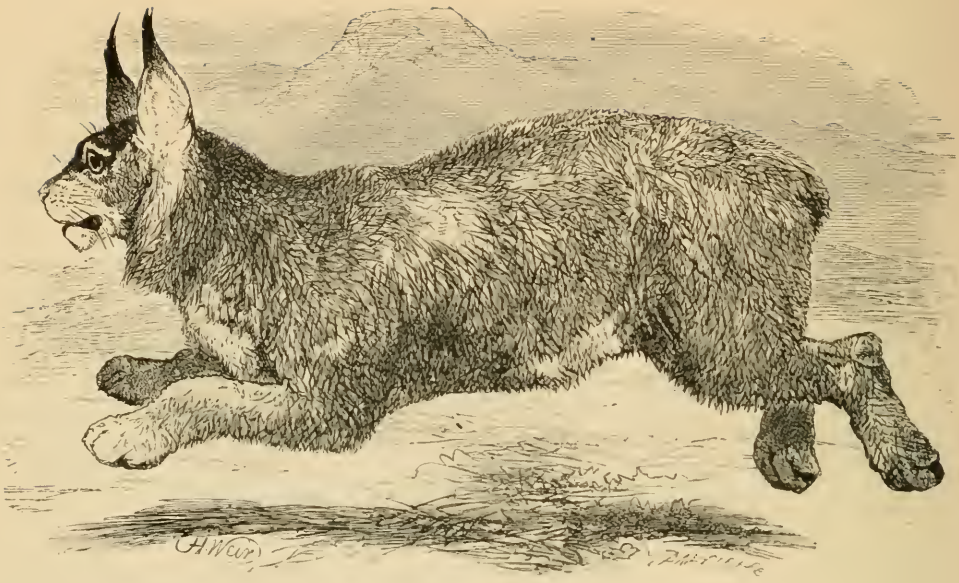
THE COMMON LYNX.—*Lyncus Europæus.*

By name, if not by sight, the common Lynx of Europe is familiar to us, and is known as the type of a quick-sighted animal. The eyes of the Lynx, and the ears of the "Blind Mole," are generally placed on a par with each other, as examples of especial acuteness of either sense.

The European Lynx is spread over a great portion of the Continent, being found in a range of country which extends from the Pyrenees to Scandinavia. It is also found in the more northern forests of Asia.

Sheep often fall victims to the Lynx, but it finds its chief nourishment among hares, rabbits, and other small animals. Like the caracal it is an excellent climber of trees, and chases its prey among the branches with ease and success.

The fur of the Lynx is valuable for the purposes to which the feline skin is usually destined, and commands a fair price in the market. Those who hunt the Lynx for the purpose of obtaining its fur, choose the winter time for their operations, as during the cold season the Lynx possesses a richer and warmer fur than is found upon it during the warm summer months.



THE CANADA LYNX.—*Lynceus Canadensis.*

The New World possesses its examples of the Lyncine group as well as the Old World, and even in the cold regions of Northern America a representative of these animals may be found. This is the Canada Lynx, commonly termed the "Peeshoo" by the French colonists, or even dignified with the title of "Le Chat."

The hair of this animal is longer than that of its southern relatives, and is generally of a dark grey, flecked or besprinkled with black. Large and indistinct patches of the fur are of a sensibly darker tint than the generality of its coat. Most of the hairs are white at their extremities, which will account for the apparent changes in colour which will be seen even in the same species at different times.

The limbs of this Lynx are very powerful, and the thick heavily made feet are furnished with strong white claws that are not seen unless the fur be put aside. It is not a dangerous animal, and, as far as is known, feeds on the smaller quadrupeds, the American hare being its favourite article of diet.

While running at speed it presents a singular appearance, owing to its peculiar

mode of leaping in successive bounds, with its back slightly arched, and all the feet coming to the ground nearly at the same time. It is a good swimmer, being able to cross the water for a distance of two miles or more. Powerful though it be, it is easily killed by a blow on the back, a slight stick being a sufficient weapon wherewith to destroy the animal. The flesh of the Peeshoo is eaten by the natives, and is said, though devoid of flavour, to be agreeably tender.

CHETAH.—*Gueparda jubáta.*

The Chetah, Youze, or Hunting Cat, as it is indifferently named, is an inhabitant of Asia and Africa. It is rather a large animal, exceeding an ordinary leopard in stature. This superiority in size appears to be greater than it is, on account of the very long limbs of the Chetah, which give it the aspect of a very large animal. The head, however, is very small in proportion to its height, and the limbs, although very long, are slender, and devoid of that marvellous strength that lies in the true leopard's limb.

The title "jubata," or crested, is given to the Chetah on account of a short, mane-like crest of stiff long hairs which passes from the back of the head to the shoulders. Although the Chetah is popularly termed the "Hunting Leopard," it can lay but little claim to the pardine title, and has probably been placed among the true leopards more on account of its spotted hide than for its shape and structure. The claws of this animal are but partially retractile, nor are they so sharply curved, nor so beautifully pointed, as those of the leopard. The Chetah is unable to climb trees like the leopard, and in the general contour of its body evidently forms one of the connecting links between the feline and the canine races.

The Chetah is a terrible enemy to deer and other animals on which it feeds, but it is not endowed with much speed, and is forced to rely on its cunning and agility.

In order to obtain its food, the Chetah watches for a herd of deer or antelopes, or is content to address himself to the pursuit of a solitary individual, or a little band of two or three, should they be placed in a position favourable for his purpose. Crouching upon the ground so as to conceal himself as much as possible from the watchful eyes of the intended prey, the Chetah steals rapidly and silently upon them, never venturing to show himself until he is within reach of a single spring. Having chosen out one individual from the herd, the Chetah leaps upon the devoted animal and dashes it to the ground. Fastening his strong

grip in the throat of the dying animal, the Chetah laps the hot blood, and for the time seems forgetful of time or place.

Of these curious habits, the restless and all-adapting mind of man has taken advantage, and has diverted to his own service the wild destructive properties of the Chetah. The Asiatics have brought this curious chase to great perfection, and are able to train Chetahs for this purpose in a wonderfully perfect manner.

When a Chetah is taken out for the purpose of hunting game, he is hooded and placed in a light native car, in company with his keepers. When they perceive a herd of deer, or other desirable game, the keepers turn the Chetah's head in the proper direction, and remove the hood from his eyes. The sharp-sighted animal generally perceives the prey at once, but if he fails to do so the keepers assist him by quiet gestures.

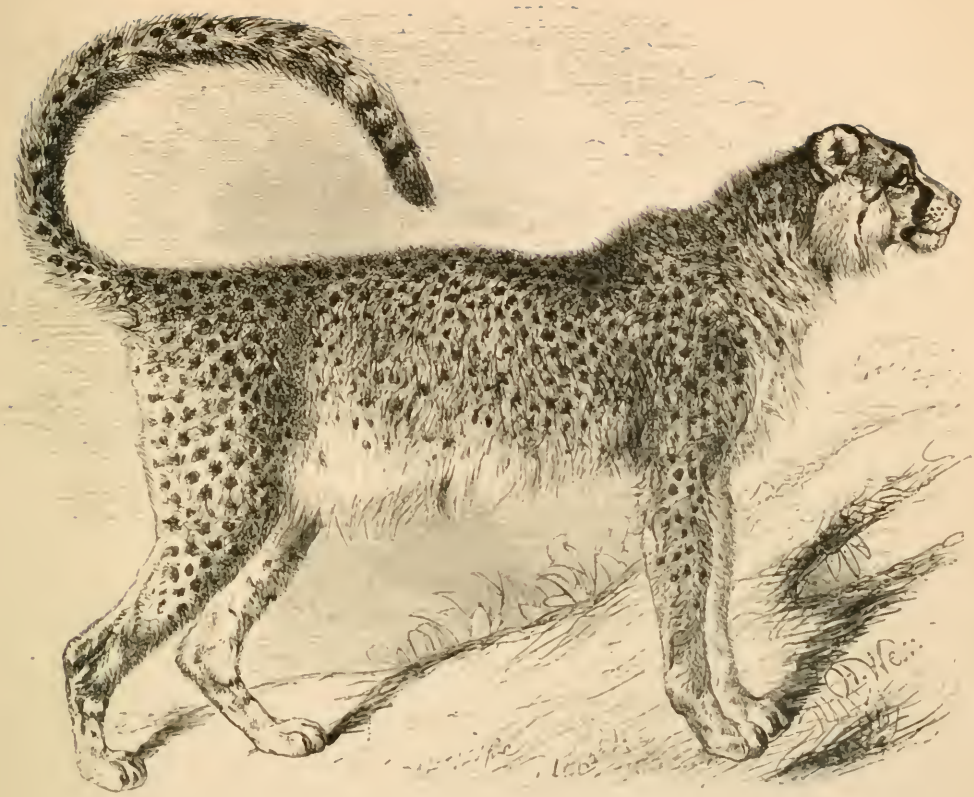
No sooner does the Chetah fairly perceive the deer than his bands are loosened, and he gently slips from the car. Employing all his innate artifices, the quadrupedal hunter approaches the game, and with one powerful leap flings himself upon the animal which he has selected. The keepers now hurry up, and take his attention from the slaughtered animal by offering him a ladleful of its blood, or by placing before him some food of which he is especially fond, such as the head and neck of a fowl. The hood is then slipped over his head, and the blinded animal is conducted patient and unresisting to the car, where he is secured until another victim may be discovered.

It is a very curious fact, that although the Chetah is found in Africa as well as in Asia, it has not been subjected to the dominion of man by the African races, but is suffered to roam at large, unfettered and unblinded.

The natural disposition of this pretty creature seems to be gentle and placid, and it is peculiarly susceptible of domestication. It has been so completely trained as to be permitted to wander where it chooses like a domestic dog or cat, and is quite as familiar as that animal. Even in a state of semi-domestication it is sufficiently gentle. One sleek and well-conditioned specimen with which I made acquaintance behaved in a very friendly manner, permitting me to pat its soft sides, or stroke its face, and uttering short self-sufficient sounds, like the magnified purr of a gratified cat.

Certainly these caged animals have a wondrous perception of the intentions of those who visit them. I heard one curious instance of forbearance on the part of a caged tiger.

A little girl, about five or six years of age, was taken to see the lions and tigers in a travelling menagerie. They presented to her mind the idea that they were simply very large cats, only differing in size from her favourite cat at home. So she crept close to the cage, and getting on a stone, in order to lift her small



CHETAH.

person to a proper elevation, fearlessly thrust her arm through the bars, and began to stroke the nose of the tiger. The spectators, seeing the child thus engaged, very unwisely set up a general scream, which had the effect of startling the tiger, and of making it so suspicious, that a second attempt to stroke it would have probably resulted in the loss of the arm.

The fur of the Chetah is rather rough, and is by no means as smooth as that of the Leopard. The colour of it is similar to that animal, but the ground tint of the fur is a deeper fawn.

HYÆNAS.

The group of animals which are so well known by the titles of Hyænas, are, although most repulsive to the view, and most disgusting in their habits, the very saviours of life and health in the countries where they live, and where there is necessity for their existence. In this land, and at the present day, there is no need of such large animals as the Hyænas to perform their necessary and useful task of clearing the earth from the decaying carcasses which cumber its surface and poison its air, for in our utilitarian age even the very hairs from a cow's hide are turned to account, and the driest bones are made to subserve many uses.

In the semi-civilized countries of Africa and Asia, the Hyæna is a public benefactor, swallowing with his accomodating appetite almost every species of animal substance that can be found, and even crushing to splinters between his iron jaws the bones which would resist the attacks of all other carnivorous animals.

There are several species of Hyænas, which are found in Asia and Africa, such as the Striped Hyæna, sometimes called the Crested Hyæna, or Strand Wolf, the Brown Hyæna, and the Tiger Wolf, or Spotted Hyæna. The habits of all these animals are very similar. The animals comprising this group are remarkable for their slouching, shambling gait, which is caused by the disproportion that exists between their legs. The fore-legs which are used for digging, are powerful and developed, but the hinder pair are so short that the line of the back slopes suddenly downwards from the hips, and gives to the creature a most sneaking and cowardly look. There are only four toes on each foot.

Useful as is the Hyæna when it remains within its proper boundaries, and restricts itself to its proper food, it becomes a terrible pest when too numerous to find sufficient nourishment in dead carrion. Incited by hunger, it hangs on the skirts of villages and encampments, and loses few opportunities of making a meal at the expense of the inhabitants. It does not openly oppose even a domestic ox, but endeavours to startle its intended prey, and cause it to take to flight before it will venture upon an attack. In order to alarm the cattle it has a curious habit of creeping as closely as possible to them, and then springing up suddenly before their eyes. Should the startled animal turn to flee, the Hyæna will attack and destroy them; but if they should turn to bay, will stand still and venture no farther. It will not even attack a knee-haltered horse. So it often happens that the Hyæna destroys the healthy cattle which can run away, and is afraid to touch the sickly and maimed beasts which cannot flee, and are forced to stand at bay.

Among the warlike tribes that inhabit the northern part of Africa this cowardly disposition throws a sad discredit on the animal, and they lavish upon the Hyæna their copious vocabulary of abusive terms. Even a weapon which has been used for the purpose of killing a Hyæna is held by them as entirely defiled, and rendered unfit for the use of a warrior.

These Hyænas are very fond of dog-flesh, and employ a very ingenious mode of catching their favourite prey. The female Hyæna creeps quietly, and ensconces herself behind some bush or other concealment not far from a village or a temporary encampment. Her mate then plays his part by running boldly forwards, and making himself as conspicuous as possible, so as to draw the attention of some of the multitudinous dogs which prowl about human habitations. Out rush the dogs at the sight of the intruder, and the Hyæna runs off as fast as he can, taking care to pass near the spot where his mate is lying concealed. The result may well be imagined.

It is not often the case that the Hyæna will commit itself to so bold an action, for it is never known to be venturesome unless compelled by dire hunger.

STRIPED HYÆNA.—*Hyæna striáta.*

The Striped Hyæna is easily to be distinguished from its relations by the peculiar streaks from which it derives its name. The general colour of the fur is a greyish-brown, diversified with blackish stripes, which run along the ribs, and upon the limbs. A large irregular black patch extends over the front of the throat, and single black hairs are profusely scattered among the fur. When young, the stripes are more apparent than in adult age, and the little animal has something of a tigrine aspect about its face. The reason for this circumstance is twofold; firstly, because the groundwork of the fur is lighter than in the adult Hyæna; and secondly, because the stripes are proportionately much broader than in the full-grown animal, and therefore occupy more space.

Although the Hyæna is so cowardly an animal, yet, like all cowards, it becomes very bold when it finds that it can make its attack with impunity. Emboldened by numbers, and incited by fierce hunger, the Hyænas become the very pests of the native African towns; roaming with impunity through the streets in search of the garbage that is plentifully flung from the houses, and conducting themselves with the greatest impudence. At nightfall the inhabitants are fain to close their doors firmly, for these dangerous brutes have been known to seize a sleeping man, and to kill him with the terrible grip of their powerful jaws.

STRIPED HYÆNA.

In proportion to its size, the Hyæna possesses teeth and jaws of extraordinary strength, and between their tremendous fangs the thigh-bones of an ox fly in splinters with a savage crash that makes the spectator shudder. The skull of this animal is formed in a manner that at once points it out as belonging to a creature of enormous power.

The muzzle is but short, and the rough thorn-studded tongue is used, like that of the feline group, for rasping every vestige of flesh from the bones of the prey.

There are several kinds of Hyænas, one of the most remarkable being the Laughing Hyena or Tiger Wolf.

The Tiger Wolf is celebrated for the strange unearthly sounds which it utters when under the influence of great excitement. The animal is often called the "Laughing Hyæna" on account of the maniacal, mirthless, hysterical laugh which

it pours forth, accompanying these horrid sounds with the most absurd gestures of body and limbs. During the time that the creature is engaged in uttering these wild fearful peals of laughter it dances about in a state of ludicrously frantic excitement, running backwards and forwards, rising on its hind legs, and rapidly gyrating on those members, nodding its head repeatedly to the ground; and, in fine, performing the most singular antics with wonderful rapidity.

The Hyæna is too vexatious a neighbour not to be persecuted, and frequently falls a victim to the treacherous spring-gun, in spite of the benefits he confers on mankind by his unfailing energy in devouring every scrap of eatable food.

To set a gun for the purpose of Hyæna shooting is an easy matter, and is managed as follows: The loaded musket is fixed horizontally to a couple of posts, about the height of a Hyæna's head. A string is then fastened to the trigger, one end of which is passed behind the trigger guard, or through a ring placed for the purpose, and the other is firmly tied to a piece of meat, which is hung on the muzzle of the gun. When a passing Hyæna, prowling about in search of prey, is attracted by the meat, he seizes it between his teeth, and thus draws the trigger of the gun, lodging the bullet in his head. Tenacious of life as is the Hyæna, he falls dead on the spot.

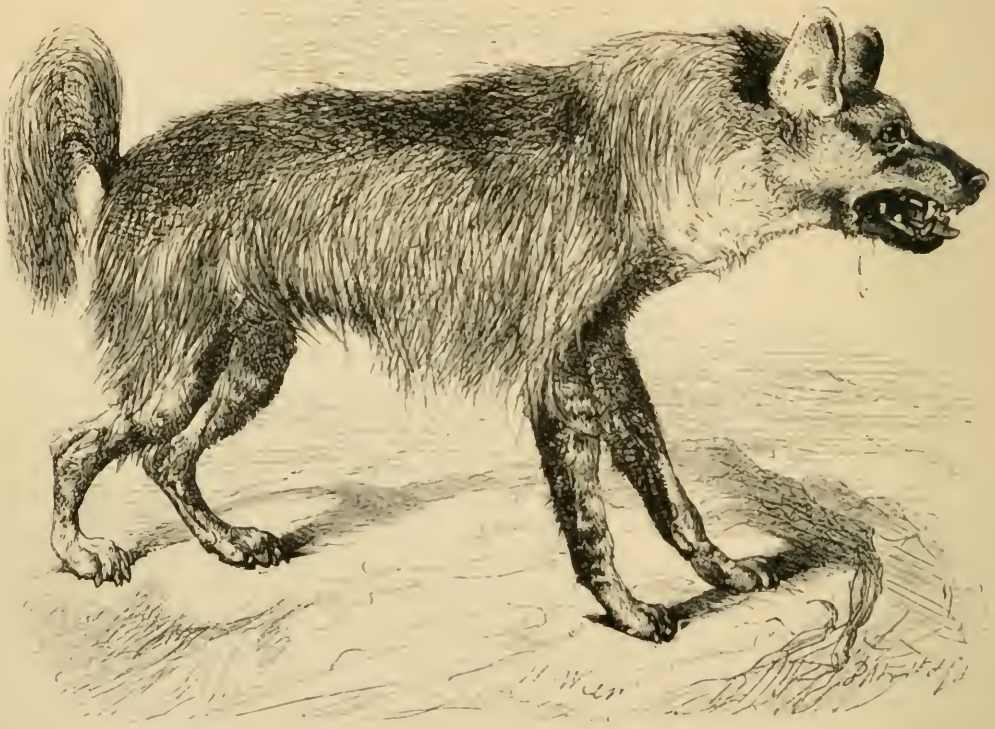
In order to attract the notice of the Hyænas, a piece of putrid flesh is dragged along the ground so as to leave an odoriferous trail leading to the treacherous weapon.

Taught by experience, the Hyænas have become so suspicious of an object which they do not understand, and to which they are not accustomed, that the very sight of a piece of string alarms them, and guards them from self immolation in many a trap. So the farmers, who chiefly set these explosive traps, match the creature's cunning by their own superior intellect, and substitute the stems of creeping plants for the hempen cord or leathern thongs. These objects are regarded without suspicion, and by their assistance the outwitted Hyæna is laid low.

In chasing living animals the Hyæna employs the same caution that characterises his ordinary proceedings. When they seize their prey the Hyænas carefully avoid those spots where the affrighted animal might reach them with its hoofs, teeth, or horns. They never seem to spring on the animal's neck, but hang on to its flanks, dragging it to the ground by the mingled weight of their body and the pain of the wound. Many veteran oxen and horses are deeply scarred in the flanks by the teeth of the Hyæna, which has made its attack, but has been scared away or shaken off.

The eyes of the Hyænas are singularly repulsive in their expression, being round, dull, and almost meaningless.

The smell of the Hyæna is so rank and offensive that no animal, other than of its own species, will come near the carcass. Dogs, when they come across the scent of the Hyæna, at once show signs of fear; they will scarcely leave their master, and, with bristling manes and wild looks, examine every inch of ground over which they pass.



BROWN HYÆNA.—*Crocúta Brúnnea.*

The Brown Hyæna is so named on account of the colour of its fur, which is of a blackish-brown tint, diversified with a lighter hue upon the neck and throat, and a few indistinctly marked bands of a blackish-brown across the legs. The hair of this species is extremely long, and has a decided "set" backwards.

Sometimes the brown hue of the fur is washed with a warmer tint of chesnut, from which circumstance the animal has been termed "Crocuta rufa," the latter word signifying a ruddy hue, and being applied especially to hair.

AARD WOLF.—*Próteles cristátus.*

We now come to the Civets, the first example of which is the Aard Wolf of Southern Africa.

The form of the Aard Wolf much resembles that of the hyænas, the fore-quarters being powerful and well developed, and the hinder quarters low and sloping. The general aspect of the creature is very similar to that of the hyæna, for, in addition to the sloping back and weak hind legs, the fur is rough, coarse, and coloured in a manner not unlike that of the striped hyæna. The tail is very large in proportion to the size of the animal, and is thickly covered with long bushy hair, black at the extremity, and blackish-grey on the other portions of that member. The back of the neck and the shoulders are furnished with a thick bristling mane, which it can erect when excited, and it then resembles a miniature striped hyæna.

The claws of the fore-feet are sturdy, and firmly attached to the paws, so as to serve their proper use of digging. The Aard Wolf is an admirable excavator, and

digs for itself a deep burrow, where it lies concealed during the day, buried in sleep at the bottom of its mine. From this habit of burrowing in the earth, the creature has derived its title of "Aard, or Earth Wolf."

A curious mode of domestic arrangement is carried out by these animals. Several individuals seem to unite in forming a common habitation. Several deep burrows are dug, having their common termination in a small chamber, where three or four Aard Wolves take up their residence.

CIVET.—*Viverra Civetta.*

The Civet, sometimes, but wrongly called the Civet Cat, is a native of Northern Africa, and is found plentifully in Abyssinia, where it is eagerly sought on account of the peculiarly scented substance which is secreted in certain glandular pouches. This Civet perfume was formerly considered as a most valuable medicine, and could only be obtained at a very high price; but in the present day it has nearly gone out of fashion as a drug, and holds its place in commerce more as a simple perfume than as a costly panacea.

In this animal we may trace a decided resemblance to the Aard Wolf, both in the shape of the body and in the markings.

But the Civet bears itself in a very different manner, having more of the weasel than of the hyæna nature, and the colouring of the fur is of a much richer character than that of the previously mentioned animal.

It is nearly as large as the Aard Wolf, its total length being about three feet six inches, of which the tail occupies nearly one-third. Along the back, and even on part of the tail, runs a boldly marked crest or mane, which can be erected by the animal at pleasure, or can lie nearly, but not quite, evenly with the fur.

The substance which is so prized on account of its odoriferous qualities is secreted in a double pouch, which exists under the abdomen, close to the insertion of the tail. As this curious production is of some value in commerce, the animal which furnishes the precious secretion is too valuable to be killed for the sake of its scent-pouch, and is kept in a state of captivity, so as to afford a continual supply of the odoriferous material.

The mode by which the Civet perfume is removed from the animal is very ingenious. The animals which belong to this group are very quick and active in their movements, and, being furnished with sharp teeth and strong jaws, are dangerous beasts to handle. As may be imagined, the Civet resents the rough

CIVET.

treatment that must be used in order to effect the desired purpose, and snaps and twists about with such lithe and elastic vigour that no one could venture to lay a hand on it without sufficient precaution. So, when the time arrives for the removal of the perfume, the Civet is put into a long and very narrow cage, so that it cannot turn itself round. A bone or horn spoon is then introduced through an opening, and the odoriferous secretion is scraped from its pouch with perfect impunity. This end achieved, the plundered animal is released from its strait durance, and is permitted a respite until the supply of perfume shall be re-formed.

As the Civet might be inconvenienced by the continual secretion of this substance. Nature supplies a simple remedy, and the perfume falls from the pouch in pieces about the size of an ordinary nut. The interior of each half of the pouch is sufficiently capacious to hold a large almond. As the civet is formed.

it is pressed through very small orifices into the pouch, so that if it is examined before it has merged itself into an uniform mass, it is something like fine vermicelli in appearance. The interior of the pouch is thickly coated with fine hairs, and entirely covered with the minute orifices or pores through which the perfume exudes. The creature is able to compress the pouch at will.

The Civet seems to be a very sleepy animal, especially during the daytime, and to be with difficulty aroused from its somnolence.

While it remains in the pouch, the "civet" is rather thick and unctuous, something like butter in texture.

Upon the Asiatic continent, and its islands, the place of the civet is taken by several of the Viverrine tribe, one of which, the ZIBETH, bears a close resemblance to its African relative.

The Zibeth is a native of many parts of Asia, being found in China, India, the Philippines, Nepal, and other localities. It may be distinguished from the civet by the greater amount of white which is found in the fur, especially about the neck and throat, by the shorter hair, and by the greater number of dark rings upon the tail. The tail of the Zibeth is not so largely marked with black at its extremity as that of the civet. The mane or crest which runs along the back is comparatively small. The spots which mark the body are rather indistinctly outlined, and the general tint of the fur seems to be paler than that of the civet.

It is furnished with a musk-secreting pouch like that of the African civet. It is a lethargic animal in captivity, and even in a wild state passes the day in sleep, and only seeks its food after dark. Its usual diet is composed of birds and the smaller mammalia, but it will also eat various fruits, especially those of a sweet nature. In size it nearly equals the civet. In captivity it is a gentle creature, and is so completely tamed by the natives of the countries where it is found, that it inhabits the house like a domestic cat and employs itself in similar useful pursuits.

TANGALUNG.—*Viverra Tangalunga.*

The creature which is known by the native name of Tangalung, bears some resemblance to the preceding animals. The black markings, however, are more distinct, and along the direction of the spine the fur is most deeply black. On the lower part of the throat and neck are three curiously shaped black bands, very wide in the middle and very narrow at each end, the central band being several times wider than the others.

The length of this animal is two feet six inches, the head measuring nearly seven inches in length, and the tail about eleven inches. The head is rather wide and rounded, and is suddenly contracted towards the nose, so as to form a rather short muzzle. The tail is nearly cylindrical, and does not taper so much as that of the Zibeth, and the body is furnished with a close downy covering of soft hairs next the skin. It is partly to this woolly hair that the cylindrical outline of the tail is owing.

The Tangalung is a native of Sumatra.

BANDED MONGOUS.--*Mungos fasciátus.* GARANGAN.--*Herpestes Javánicas.*

All the Ichneumons are remarkable for their long tails and bodies, short legs, and great activity. Some of these creatures are represented in the accompanying engraving.

The left-hand figure represents the creature which is known by the name of the Banded Mongous, and which is an inhabitant of Africa. It is a small animal, being about the size of a very large water-rat, and is peculiarly quick and energetic in its movements.

In habits it is singularly brisk and lively, ever restlessly in motion, and accompanying its movements with a curious and unique sound, something like the croak of a raven. When excited it pours out a succession of quick chattering sounds, and when its feelings are extremely touched it utters sharp screams of rage. If its companions should cross its path in its temper it snaps and spits at them like an angry cat, and makes such very good use of its teeth that it leaves the marks of its passion for the remainder of the victim's life.

The right-hand figure upon the same engraving represents the Garangan, or Javanese Ichneumon. As is evident by the name, it is an inhabitant of Java. In size it equals the last mentioned animal. Its colour is nearly uniform, and consists of a bright rich chesnut on the body, and a lighter fawn colour on the head, throat, and under parts of the body.

This little animal is found in great numbers inhabiting the teak forests, where it finds ample subsistence in the snakes, birds, and small quadrupeds.

ICHNEUMON.—*Herpestes Ichneumon.*

The common Ichneumon or Pharaoh's Rat, as it is popularly but most improperly termed, is plentifully found in Egypt, where it plays a most useful part in keeping down the numbers of the destructive quadrupeds and the dangerous reptiles. Small and insignificant as this animal appears, it is a most dangerous foe to the huge crocodile, feeding largely upon its eggs, and thus preventing the too rapid increase of these fierce and fertile reptiles. Snakes, rats, lizards, mice, and various birds, fall a prey to this Ichneumon, which will painfully track its prey to its hiding-place, and wait patiently for hours until it makes its appearance, or will quietly creep up to the unsuspecting animal, and flinging itself boldly upon it destroy it by rapid bites with its long sharp teeth.

Taking advantage of these admirable qualities, the ancient Egyptians were wont to tame the Ichneumon, and permit it the free range of their houses, and on account of its habits paid it divine honours as an outward emblem of the Deity.

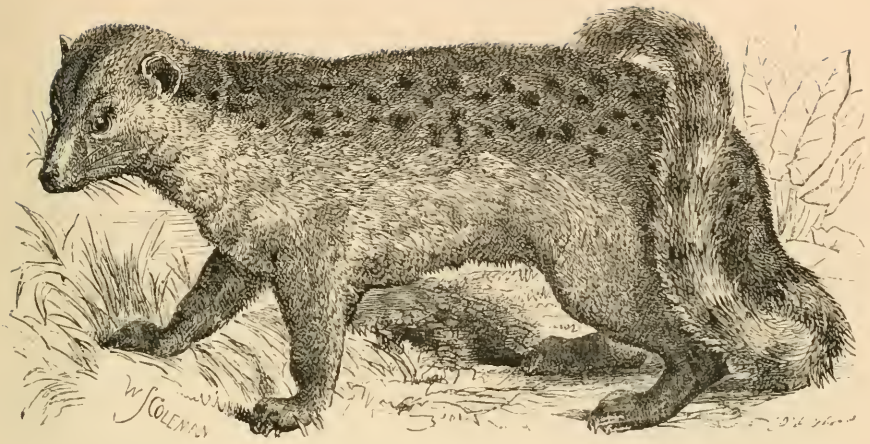
Although the diminutive size of this creature renders it an impotent enemy to so large and well mailed a reptile as the crocodile, yet it causes the destruction of innumerable crocodiles annually by breaking and devouring their eggs. The egg of the crocodile is extremely small, when the size of the adult reptile is taken into consideration, so that the Ichneumon can devour several of them at a meal.

While eating, the Ichneumon is very tetchy in its temper, and will very seldom endure an interruption of any kind. In order to secure perfect quiet while taking its meals, it generally carries the food into the most secluded hiding-place that it can find and then commences its meal in solitude.

THE ZENICK.—*Suricáta Zenick*

The Zenick, sometimes called the Suricate, is a native of Southern Africa, but not very commonly found. It is not so exclusively carnivorous as the preceding animals, being fond of sweet fruits as well as of an animal diet. It is rather a small animal, measuring about eighteen inches in total length, its tail being six inches long. The feet are armed with long and stout claws, by means of which the creature can burrow with some rapidity. The colour is greyish brown, with a tinge of yellow, and the upper surface of the body is covered by several obscurely marked bars of a deeper brown hue. A silvery tint is washed over the limbs. The tail is brown, tinged with red, and black at the extremity. A few indistinct spots are scattered over the breast. The height of the animal is rather more than six inches.

The brain is large in proportion to the size of the animal, and, as may be expected, the creature is remarkably docile and intelligent. It is very sensitive to kindness, and equally so to harsh treatment, showing great affection towards those who behave well towards it, and biting savagely at any one who treats it unkindly. When domesticated it ranges the house at will, and cannot be induced to leave its home for a life of freedom. Like the Ichneumon, it is an useful inmate to a house, extirpating rats, mice, and other living nuisances. It is offended by a brilliant light, and is best pleased when it can abide in comparative darkness. This nocturnal habit of eye renders it especially useful as a vermin exterminator, as it remains quiet during the hour while the rats, mice, and snakes lie still in their holes, and only issues from its hiding-place when the shades of night give the signal for the mammalian and reptilian vermin to sally forth on their own food-seeking quest. As its eyes are fitted for nocturnal sight, it becomes a terrible enemy to these creatures, creeping quietly upon them, and seizing them before they are aware of its proximity.



NANDINE.—*Nandínia binotáta.*

We have here a very remarkable animal, known by the name of the Nandine. It is a very pretty little creature, for its fur is richly and elegantly coloured and diversified with spots and strokes, and its movements are easy and gliding.

On account of the double row of spots which run along the body, the Nandine has been dignified with the title of "binotata," or "double-spotted," by almost every naturalist who has woven it into his system, even though the animal itself has been placed by some authors among the Civets, by some among the Ichneumons, and by others among the Paradoxures.

The general colour of the fur is a darkish and very rich brown, darker along the back, and lighter on the sides. The tail is covered with blackish rings which are but obscurely defined.

MASKED GLUTTON.—*Páguma Larváta.*

The curious animal which is represented in the engraving has, until lately been placed among the weasels, under the title of Masked Glutton, and has only of late years been referred to its proper place in the scale of creation.

The title of Larvata, or Masked, is given to it on account of the white streak down the forehead and nose, and the white circle round the eyes, which gives the creature an aspect as if it was endued with an artificial mask. There is a pale olive-grey band extending from the back of each ear and meeting under the throat, and the general colour of the fur is an olive-brown, besprinkled and washed with grey. It has been found in China, from which country several specimens have been imported into England. There are many other species belonging to the same genus, such as the Nepal Paguma, the White Whiskered Paguma of Sumatra and Singapore, the Woolly Paguma from Nepal, and the Three-streaked Paguma of Malacca.

THE KHOLSUN, OR DHOLE.—*Cúön Dukhuensis.*

The large and important group of animals which is known by the general name of the Dog-Tribe, embraces the wild and domesticated Dogs, the Wolves, Foxes, Jackals, and that curious South-African animal, the Hunting-Dog. Of these creatures, several have been brought under the authority of man, and by continual intermixtures have assumed that exceeding variety of form which is found in the different "breeds" of the domestic Dog. Among the wild bands of dogs, the two most celebrated are the Buansuah of Northern India, and the Kholsun, or Dhole as it is often called, of British India. The latter animal is celebrated for its powers of hunting, and is sometimes termed the Hunting Dog in compliment to its powers. Some persons imagine that the domestic dog

derives its origin from one or other of these animals, some attribute its source to the wolves, and others to the fox.

The Dhole, or Kholsun, as it is sometimes called, inhabits the western frontiers of British India, its range extending from Midnapore to Chamar, but does not appear to take up its residence in other parts of the same great country. Even in the localities which are favoured by its presence, the Dhole seldom makes its appearance, and by many residents in India, has been counted but as a myth of the natives. It is a very shy animal, keeping aloof from man and his habitations, and abiding in the dense dark jungles, which extend for hundreds of miles, and afford little temptation for human beings to enter.

Among the peculiarities of the Dhole's character, its fondness for the chase is perhaps the most remarkable. There is nothing peculiar in the fact that the Dhole unites in large packs and hunts down game, both large and small, because many of the canine race, such as wolves and others, are known by many and tragical experiences to run down and destroy their prey in like manner. But the Dhole is apparently the only animal that, although individually so far the inferior of its fierce prey, in size, strength, and activity, has sufficient confidence in its united powers, to chase and kill the terrible tiger, maugre his fangs and claws.

From the observations which have been made, it seems that hardly any native Indian animal, with the exception of the elephant and the rhinoceros, can cope with the Dhole; that the fierce boar falls a victim, in spite of his sharp tusks, and that the swift-footed deer fails to escape these persevering animals. The leopard is tolerably safe, because the dogs cannot follow their spotted quarry among the tree branches, in which he fortifies himself from their attacks; but if he were deprived of his aboreal refuge, he would run but a poor chance of escaping with life from the foe. It is true that, in their attack upon so powerfully armed animals as the tiger and the boar, the pack is rapidly thinned by the swift blows of the tiger's paw, or the repeated stabs of the boar's tusks; but the courage of the survivors is so great, and they leap on their prey with such audacity, that it always yields at last from sheer weariness and loss of blood.

It is probable that the sanguinary contests which often take place between the Dholes and their prey have a great effect in checking the increase of the former animals, and that, if such salutary influence were not at work, these bold and persevering hunters might increase to such an extent as to become a serious pest to the country.

In the chase, the Dhole is nearly silent, thus affording a strong contrast to the cheerful tongue of the fox-hound in "full cry," or the appalling howl

of the wolf when in pursuit of a flying prey. Only at intervals is the voice of the Dhole heard, and even then the animal only utters a low anxious whimper, like that of a dog which has lost its master, or feels uneasy about its task. It is a swift animal in the chase, and Captain Williamson, who has seen it engaged in pursuit of its prey, thinks that no animal could lead the Dhole a long chase. The average number of individuals in the pack is about fifty or sixty.

The colour of the Dhole is a rich bay, darkening upon the feet, ears, muzzle, and tip of the tail. In height it equals a rather small greyhound. It does not assault human beings unless it be attacked, neither does it seem to fly from them, but, in case of a sudden meeting, pursues its avocations as if unconscious of the presence of an intruder. The countenance of this animal is very bright and intelligent, chiefly owing to the keen and brilliant eye with which it is favoured.

The Buansuah, presents many points of similarity to the Dhole, and is said to rival the latter creature in its tiger-killing propensities.

Like the Dhole, it is a shy animal, and never willingly permits itself to be seen, preferring to take up its residence in the thickest coverts which are afforded by the luxuriant vegetation of its native land. It hunts in packs, but, unlike the preceding animal, gives tongue continually as it runs, uttering a curious kind of bark, which is quite distinct from the voice of the domestic Dog, and yet has nothing in common with the prolonged howl of the wolf, the jackal, or the foxes.

The number of individuals in each pack is not very great, from eight to twelve being the usual average. They are possessed of exquisite powers of scent, and follow their game more by the nose than by the eye.

When captured young, the Buansuah readily attaches itself to its keeper, and, under his tuition, becomes a valuable assistant in the chase. Unfortunately, the Dog will too often refuse its confidence to any one except its keeper, and therefore it is not so useful as it might otherwise be rendered. It is probable that the keeper himself has some hand in this conduct, and wilfully teaches his charge to repel the advances of any person save himself.

In the chase of the wild boar, the peculiar character of the Buansuah exhibits itself to great advantage, as its wolf-like attack of sudden snap is more destructive to its prey than the bite of an ordinary hound.

All the various Dogs which have been brought under the subjection of man are evidently members of one single species, *Canis familiaris*, being capable of mixture to an almost unlimited extent. By means of crossing one variety with

another, and taking advantage of collateral circumstances, such as locality, climate, or diet, those who have interested themselves in the culture of this useful animal have obtained the varied forms which are so familiar to us. In general character, the groups into which domesticated Dogs naturally fall are tolerably similar, but the individual characters of Dogs are so varied, and so full of interest, that they would meet with scanty justice in ten times the space that can be afforded to them in these pages. It has been thought better, therefore, to occupy the space by figures and descriptions of the chief varieties of the domesticated Dog, rather than to fill the pages with anecdotes of individuals. Several varieties of the Dog will be described in the following pages, and illustrated with figures which, in almost every instance, are portraits of well-known animals.

One of the most magnificent examples of the domesticated Dog is the THIBET DOG, an animal which, to his native owners, is as useful as he is handsome, but seems to entertain an invincible antipathy to strangers of all kinds, and especially towards the face of a white man. These enormous Dogs are employed by the inhabitants of Thibet for the purpose of guarding their houses and their flocks, for which avocation their great size and strength render them peculiarly fit. It often happens that the male inhabitants of a Thibetian village leave their homes for a time, and journey as far as Calcutta, for the purpose of selling their merchandise of borax, musk, and other articles of commerce. While thus engaged, they leave their Dogs at home, as guardians to the women and children, trusting to the watchfulness of their four-footed allies for the safety of their wives and families.

The courage of these huge Dogs is not so great as their size and strength would seem to indicate, for excepting on their own special territories, they are little to be feared, and can be held at bay by a quiet, determined demeanour. Several of these handsome animals have been brought to England. Their colour is generally a deep black, with a slight clouding on the sides, and a patch of tawny over each eye. The hanging lips of the Thibet Dog give it a very curious aspect, which is heightened by the generally loose mode in which the skin seems to hang on the body.

It is hardly possible to conceive an animal which is more entirely formed for speed and endurance than a well-bred GREYHOUND. Its long slender legs, with their whipcord-like muscles, denote extreme length of stride and rapidity of movement; its deep, broad chest, affording plenty of space for the play of large lungs, shows that it is capable of long-continued exertion; while its sharply pointed nose, snake-like neck, and slender, tapering tail, are so formed as to afford the least possible resistance to the air, through which the creature passes with such exceeding speed.

THIBET DOG.

The chief use—if use it can be termed—of the Greyhound, is in coursing the hare, and exhibiting in this chase its marvellous swiftness, and its endurance of fatigue.

In actual speed, the Greyhound far surpasses the hare, so that, if the frightened chase were to run in a straight line, she would soon be snapped up by the swifter hounds. But the hare is a much smaller and lighter animal than her pursuer, and, being furnished with very short forelegs, is enabled to turn at an angle to her course without a check, while the heavier and longer limbed Greyhounds are carried far beyond their prey by their own impetus, before they can alter their course, and again make after the hare.

On this principle the whole of coursing depends; the hare making short, quick

THE GREYHOUND

turns, and the Greyhounds making a large circuit every time that the hare changes her line. Two Greyhounds are sent after each hare, and matched against each other, for the purpose of trying their comparative strength and speed. Some hares are so crafty and so agile, that they baffle the best hounds, and get away fairly into cover, from whence the Greyhound, working only by sight, is unable to drive them.

Naturally, the Greyhound of pure blood is not possessed of a very determined character, and it is therefore found necessary to give these creatures the proper amount of endurance by crossing them with the bull-dog, one of the most determined and courageous animals in existence. As may be supposed, the immediate offspring of a bull-dog and a Greyhound is a most ungainly animal, but by

continually crossing with the pure Greyhound, the outward shape of the thick and sturdy bull-dog is entirely merged in the more graceful animal, while his stubborn pertinacity remains implanted in his nature.

The skeleton of the Greyhound is a curious one, and when viewed from behind, bears a marvellous resemblance to that of the ostrich.

The narrow head and sharp nose of the Greyhound, useful as they are for aiding the progress of the animal by removing every impediment to its passage through the atmosphere, yet deprive it of a most valuable faculty, that of chasing by scent. The muzzle is so narrow in proportion to its length, that the nasal nerves have no room for proper development, and hence the animal is very deficient in its powers of scent. The same circumstance may be noted in many other animals.

There are many acknowledged breeds of Greyhounds, including the English Greyhound just described, the Irish, Scotch, Russian, and Persian Greyhounds. Besides these animals there is the little puny creature which is called the Italian Greyhound.

The Irish Greyhound is a remarkably fine animal, being four feet in length, and very firmly built. Its hair is of a pale fawn colour, and much rougher than that of the smooth English Greyhound.

The Scotch Greyhound is still rougher in its coat than its Irish relative, but hardly so large in its make: a very fine example of these Dogs, of the pure Glengarry breed, measures twenty-eight inches in height, and thirty-four inches in girth.

There seems to be but one breed of the Scotch Greyhound, although some families are termed Deerhounds, and others are only called Greyhounds. Each however, from being constantly employed in the chase of either deer or hare, becomes gradually fitted for the pursuit of its special quarry, and contracts certain habits which render it comparatively useless when set to chase the wrong animal. The Scotch Deerhound is possessed of better powers of scent than the Greyhound, and in chasing its game depends as much on its nose as on its eyes. And it is curious too, that although it makes use of its olfactory powers, when running it holds its head higher from the ground than the Greyhound, which only uses its eyes.

The Russian Greyhound is also gifted with the power of running by scent, and is employed at the present day for the same purposes which Irish Greyhounds subserved in former days.

The beautiful PERSIAN GREYHOUND is rather slender in make, and its ears are "feathered" after the fashion of the Blenheim spaniel's ears. Nevertheless, it is a powerful and bold creature, and can hold its own among any assemblage of Dogs of its own weight.

A MORE utter contrast to the above-mentioned animals can hardly be imagined than that which is afforded by the ITALIAN GREYHOUND, a little creature whose merit consists in its diminutive proportions and its slender limbs.

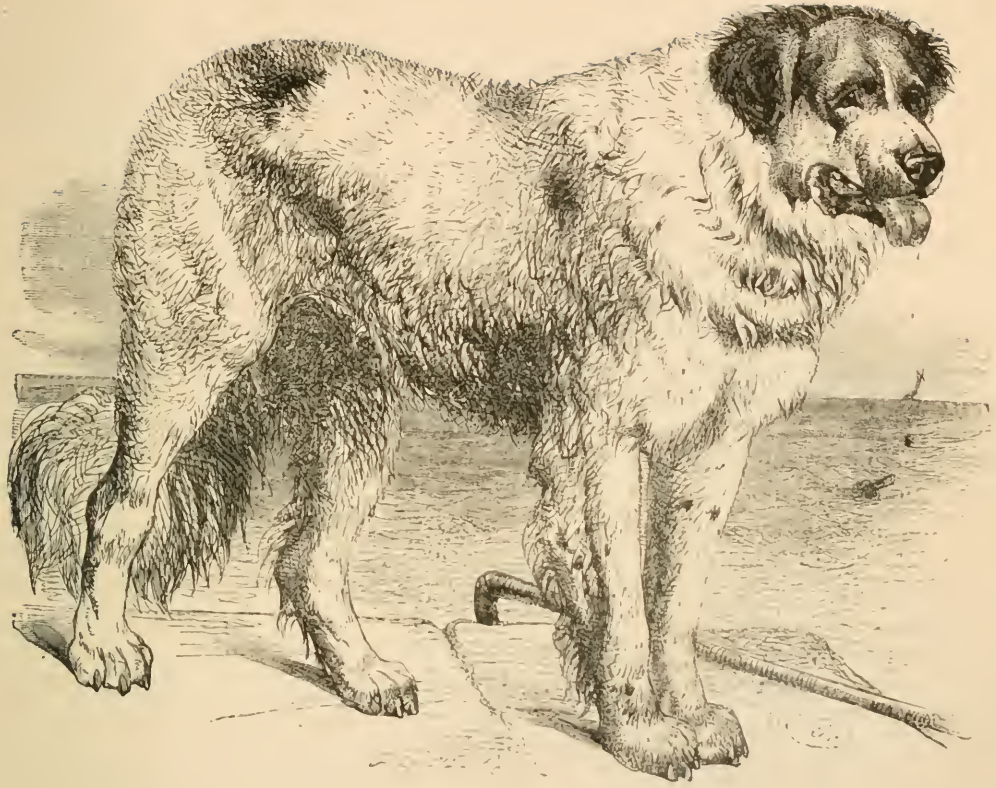
It is only fitted for the companionship of luxurious owners, and is a tender and delicate creature, shivering at every blast of wind, and needing warm wrappers whenever it ventures into the air on a cold day.

In truth, the Italian Greyhound is but a dwarfed example of the true smooth Greyhound, dwarfed after the same manner that delights our Celestial friends, when tried on vegetable instead of animal life. The weight of a really good Italian Greyhound ought not to exceed eight or ten pounds; and there are animals of good shape which only weigh six or seven pounds. One of the most perfect Dogs of the present day weighs eight and three-quarter pounds, and is fourteen and a quarter inches in height. His colour is uniformly black.

Attempts have been made to employ the Italian Greyhound in the chase of rabbits, but its power of jaw and endurance of character are so disproportioned to its speed, that all such endeavours have failed. A mixed breed, between the Italian Greyhound and the terrier, is useful enough, combining endurance with speed, and perfectly capable of chasing and holding a rabbit.

In this country it is only used as a petted companion, and takes rank among the "toy-dogs," being subject to certain arbitrary rules of colour and form, which may render a Dog worthless for one year through the very same qualities which would make it a paragon of perfection in another.

It is a pretty little creature, active and graceful to a degree, and affectionate to those who know how to win its affections. Even in the breed of our British smooth Greyhounds, this little animal has been successfully employed, and by a careful admixture with the larger Dog, takes away the heavy, clumsy aspect of the head which is caused by the bull-dog alliance, and restores to the offspring the elastic grace of the original Greyhound. It is generally bred in Spain and Italy, and from thence imported into this country, where the change of climate is so apt to affect its lungs, that its owners are forced to keep it closely swathed in warm clothing during the changeable months of the year.



NEWFOUNDLAND DOG.

The magnificent Newfoundland Dog is familiar to all, on account of his great size, his noble aspect, his gentle temper, and his singular intelligence. There are two kinds of Newfoundland Dogs, one a very large animal, standing nearly three feet in height, and the other a much smaller creature, seldom exceeding two feet or twenty-five inches. The former animal is sometimes called the Labrador Dog, the latter going by the name of the St. John's Dog.

In its native land the Newfoundland Dog is shamefully treated, being converted into a beast of burden, and forced to suffer even greater hardships than those which generally fall to the lot of animals which are used for the carriage of goods or

the traction of vehicles. The life of a hewer of wood is proverbially one of privation, but the existence of the native Newfoundland Dog is still less to be envied, being that of a servant of the wood-hewer. In the winter, the chief employment of the inhabitants is to cut fuel, and the occupation of the Dogs is to draw it in carts. The poor animals are not only urged beyond their strength, but are meagrely fed with putrid salt fish, the produce of some preceding summer. Many of these noble Dogs sink under the joint effects of fatigue and starvation, and many of the survivors commit sad depredations on the neighbouring flocks as soon as the summer commences, and they are freed from their daily toils.

In this country, however, the Newfoundland Dog is raised to its proper position, and made the friend and companion of man. Many a time has it more than repaid its master for his friendship, by rescuing him from mortal peril.

This fine creature is remarkably fond of water, and is capable of swimming for considerable distances, even through a rough and angry sea; and is never so happy as when dabbling in water, whether salt or fresh, and is marvellously endurant of long immersion. There are innumerable instances on record of human beings rescued from drowning by the timely succour brought by a Newfoundland Dog, which seems fully to comprehend the dire necessity of the sufferer, and the best mode of affording help. A Dog has been known to support a drowning man in a manner so admirably perfect, that if it had thoroughly studied the subject, it could not have applied its aiding powers in a more correct manner. The Dog seemed to be perfectly aware that the head of the drowning man ought to be kept above the water, and possibly for that purpose shifted its grasp from the shoulder to the back of the neck. It must be remembered, however, that all Dogs and cats carry their young by the nape of the neck, and that the Dog might have followed the usual instinct of these animals.

Not only have solitary lives been saved by this Dog, but a whole ship's crew have been delivered from certain destruction by the mingled sagacity and courage of a Newfoundland Dog, that took in its mouth a rope, and carried it from the ship to the shore.

Even for their own amusement, these Dogs may be seen disporting themselves in the sea, swimming boldly from the land in pursuit of some real or imaginary object, in spite of "rollers" or "breakers" that would baffle the attempts of any but an accomplished swimmer. Should a Newfoundland Dog be blessed with a master as amphibious as itself, its happiness is very great, and it may be seen splashing and snapping in luxuriant sport, ever keeping close to its beloved master, and challenging him to fresh efforts. It is very seldom that a good Newfoundland Dog permits its master to outdo it in aquatic gambols. The Dog owes much of

its watery prowess to its broad feet and strong legs, which enable the creature to propel itself with great rapidity through the water.

There are few Dogs which are more adapted for fetching and carrying than the Newfoundland. This Dog always likes to have something in his mouth, and seems to derive a kind of dignity from the conveyance of its master's property. It can be trained to seek for any object that has been left at a distance, and being gifted with a most persevering nature, will seldom yield the point until it has succeeded in its search.

A rather amusing example of this faculty in the Newfoundland Dog has lately come before my notice.

A gentleman was on a visit to one of his friends, taking with him a fine Newfoundland Dog. Being fond of reading, he was accustomed to take his book upon the downs, and to enjoy at the same time the pleasures of literature and the invigorating breezes that blew freshly over the hills. On one occasion, he was so deeply buried in his book, that he overstayed his time, and being recalled to a sense of his delinquency by a glance at his watch, hastily pocketed his book, and made for home with his best speed.

Just as he arrived at the house, he found that he had inadvertently left his gold-headed cane on the spot where he had been sitting, and as it was a piece of property which he valued extremely, he was much annoyed at his mischance.

He would have sent the Dog to look for it, had not the animal chosen to accompany a friend in a short walk. However, as soon as the Dog arrived, his master explained his loss to the animal, and begged him to find the lost cane. Just as he completed his explanations, dinner was announced, and he was obliged to take his seat at table. Soon after the second course was upon the table, a great uproar was heard in the hall; sounds of pushing and scuffling were very audible, and angry voices forced themselves on the ear. Presently, the phalanx of servants gave way, and in rushed the Newfoundland Dog, bearing in his mouth the missing cane. He would not permit any hand but his master's to take the cane from his mouth, and it was his resistance to the attempts of the servants to dispossess him of his master's property that had led to the skirmish.

Of The Spaniel Dogs, there are several varieties, which may be classed under two general heads, namely, Sporting and Toy Spaniels; the former being used by the sportsman in finding game for him; and the latter being simply employed as companions.

The Field Spaniel is remarkable for the intense love which it bears for hunting game, and the energetic manner in which it carries out the wishes of its master. There are two breeds of Field Spaniels, the one termed the "Springer,"

being used for heavy work among thick and thorny coverts, and the other being principally employed in woodcock shooting, and called in consequence the "Cocker." The Blenheim and King Charles Spaniels derive their origin from the Cocker.

The Cocker is frequently called the water Spaniel from its singular affection for the water, and its good swimming powers.

From its singular affection for the water, this Dog is termed the WATER SPANIEL, as a distinction from the Field Spaniel. In all weathers, and in all seasons, the Water Spaniel is ever ready to plunge into the loved element, and to luxuriate therein in sheer wantonness of enjoyment. It is an admirable diver, and a swift swimmer, in which arts it is assisted by the great comparative breadth of its paws. It is therefore largely used by sportsmen for the purpose of fetching out of the water the game which they have shot, or of swimming to the opposite bank of the river, or to an occasional island, and starting therefrom the various birds that love such moist localities.

Much of its endurance in the water is owing to the abundance of natural oil with which its coat is supplied, and which prevents it from becoming really wet. A real Water Spaniel gives himself a good shake as soon as he leaves the river, and is dry in a very short time. This oil, although useful to the Dog, gives forth an odour very unpleasant to human nostrils, and therefore debars the Water Spaniel from enjoying the fireside society of its human friends.

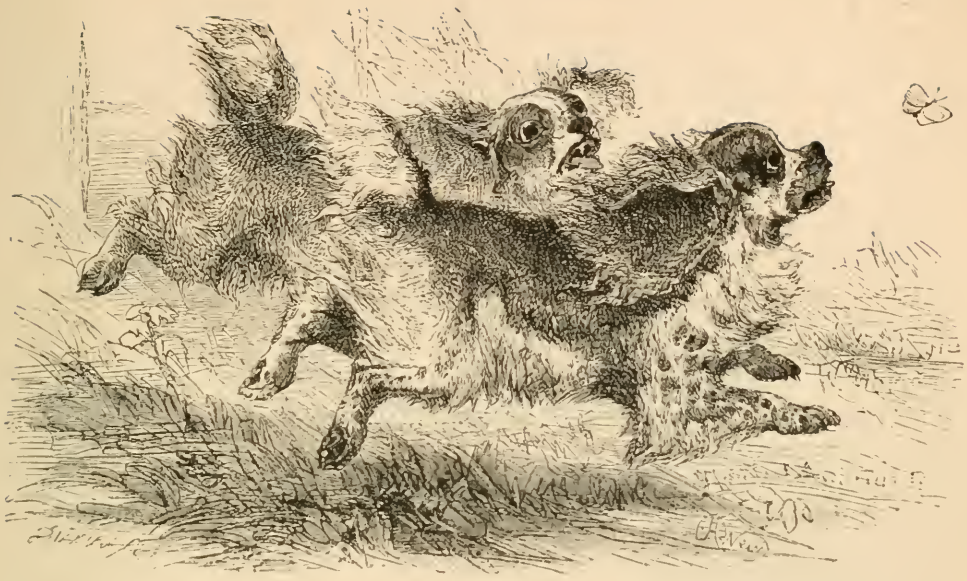
Some people fancy that the Water Spaniel possesses webbed feet, and that its aquatic prowess is due to this formation. Such, however, is not the case. All dogs have their toes connected with each other by a strong membrane, and when the foot is wide and the membrane rather loosely hung, as is the case with the Water Spaniel, a large surface is presented to the water.

KING CHARLES SPANIELS.

THE KING CHARLES SPANIEL derives its name from the "airy monarch" Charles II., who took great delight in these little creatures, and petted them in a manner that verged on absurdity.

When rightly managed, it is a most amusing companion, and picks up accomplishments with great readiness. It can be trained to perform many pretty tricks, and sometimes is so appreciative of its human playfellows that it will join their games.

I knew one of these animals which would play at the popular boy's game



KING CHARLES SPANIELS.

called "touch," as correctly as any of the boys who used to join in the game, and on account of its small size and great agility was a more formidable opponent than any of the human players. The same Dog carried on a perpetual playful feud with the cat, each seeking for an opportunity of dealing a blow and of getting away as fast as possible. It was most absurd to see the way in which the Dog would hide itself behind a door-step, a scraper, a large stone, or under a thick shrub, and panting with eager expectations, watch the cat walking unsuspiciously towards its ambush. As the cat passed, out shot the Dog, tumbled pussy over, and made off at the top of its speed, pursued by the cat in hot haste, all anxious to avenge herself of the defeat. In these chases, the cat always used to run on three legs, holding one paw from the ground as if to preserve its strength in readiness for a severe application to the Dog's ears.

"Prince," for that was the name of this clever little animal, was an accomplished bird's-nester, seldom permitting a too-confiding blackbird or thrush to build its hymeneal home in the neighbourhood without robbing it of its varigated

contents. When the Dog first discovered how palatable an article of diet was a blackbird's egg, he used to push his nose into the nest and crush the eggs with his teeth, or would try to scrape them out with his paw. In both these methods, he wasted a considerable portion of the liquid contents of the eggs, and after a while invented a much better mode of action. Whenever he discovered the newly-built nest of a thrush or blackbird, he would wait until there were some four or five eggs in the nest, and then would bite out the bottom of the nest, so as to let the eggs roll unbroken into his mouth.

One of these little animals, which belonged to a Gloucestershire family, was very clever and docile.

Every evening, he would voluntarily fetch his towel and brush, and stand patiently to be washed, combed, and brushed by the hands of his mistress. Generally, he was accustomed to take his meals with the family, but if his mistress were going to dine from home she used to say to him, "Prince, you must go and dine at the rectory to-day." The Dog would therefore set off for the rectory, rather a long and complicated walk, and after passing several bridges, and taking several turnings, would reach the rectory in time for dinner. There he would wait until he had taken his supper, and if no one came to fetch him, would return as he came.

It is a very small animal, as a really fine specimen ought not to exceed six or seven pounds in weight. Some of the most valuable King Charles Spaniels weigh as little as five pounds, or even less. These little creatures have been trained to search for and put up game after the manner of their larger relatives, the springers and cockers, but they cannot endure severe exercise, or long-continued labour, and ought only to be employed on very limited territory.

The magnificent animal which is termed the BLOODHOUND, on account of its peculiar facility for tracking a wounded animal through all the mazes of its devious course, is very scarce in England, as there is but little need of these Dogs for its chief employment.

In the "good old times" this animal was largely used by thief-takers, for the purpose of tracking and securing the robbers who in those days made the country unsafe, and laid the roads under a black mail. Sheep-stealers, who were much more common when the offence was visited with the capital punishment, were frequently detected by the delicate nose of the Bloodhound, which would, when once laid on the scent, follow it up with unerring precision, unravelling the single trail from among an hundred crossing footsteps, and only to be baffled by water or blood. Water holds no scent, and if the hunted man is able to take a long leap into the water, and to get out again in some similar fashion, he may set at defiance

the Bloodhound's nose. If blood be spilt upon the track, the delicate olfactories of the animal are blunted, and it is no longer able to follow the comparatively weak scent which is left by the retreating footsteps.

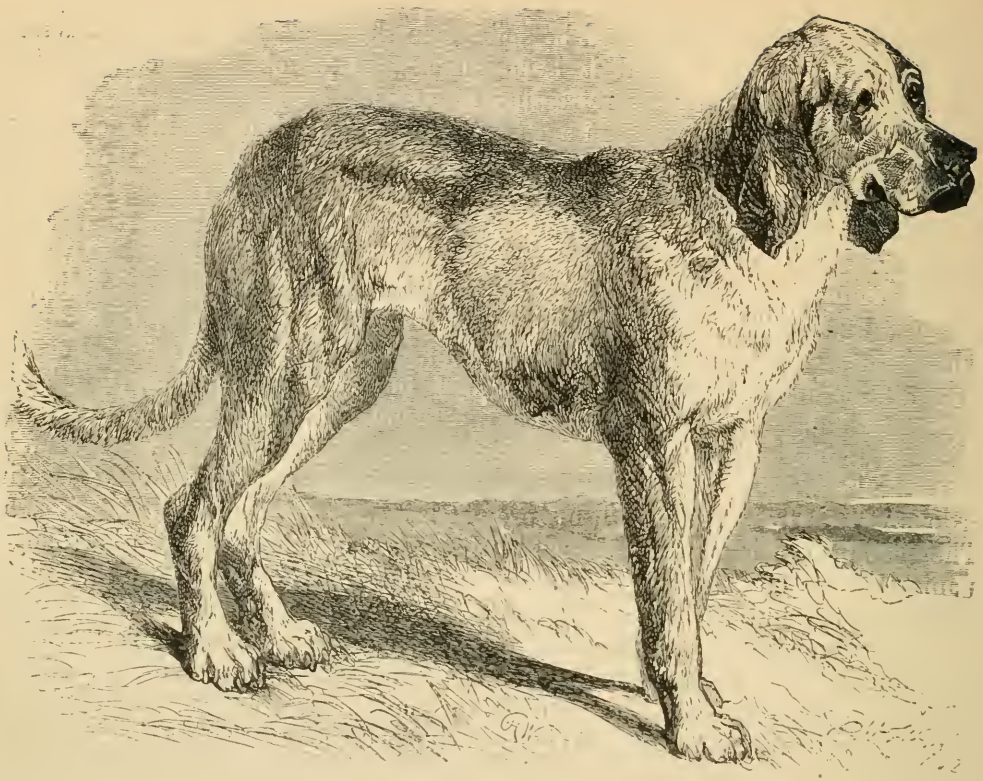
Both these methods have been successfully employed, but in either case great caution is needed. When the hound suspects that the quarry has taken to the water, it swims backward and forward, testing every inch of the bank on both sides, and applying its nose to every leaf, stick, or frothy scum that comes floating by.

In this country the Bloodhound is chiefly employed in deer-shooting, aiding the sportsman by singling out some animal, and keeping it ever before him, and by driving it in certain directions, giving to its master an opportunity for a shot from his rifle. Should the deer not fall to the shot, but be only wounded, it dashes off at a greatly increased pace, followed by the Bloodhound, which here displays his qualities. Being guided by the blood-drops that stud the path of the wounded animal, the hound has an easy task in keeping the trail, and by dint of persevering exertions is sure to come up with his prey at last.

The Bloodhound is generally irascible in temper, and therefore a rather dangerous animal to be meddled with by any one excepting its owner. So fierce is its desire for blood, and so utterly is it excited when it reaches its prey, that it will often keep its master at bay when he approaches, and receive his overtures with such unmistakeable indications of anger that he will not venture to approach until his Dog has satisfied his appetite on the carcase of the animal which it has brought to the ground. When fairly on the track of the deer, the Bloodhound utters a peculiar, long, loud, and deep bay, which, if once heard, will never be forgotton.

The modern Bloodhound is not the same animal as that which was known by the same title in the days of early English history, the breed of which is supposed to be extinct. The ancient Bloodhound was, from all accounts, an animal of extremely irritable temper, and therefore more dangerous as a companion than the modern hound.

The colour of a good Bloodhound ought to be nearly uniform, no white being permitted, except on the tip of the tail. The prevailing tints are a blackish-tan, or a deep fawn, The tail of this Dog is long and sweeping, and by certain expressive wavings and flourishings of that member, the animal indicates its success or failure.



STAGHOUND.

Closely allied with the bloodhound is the now rare Staghound, a Dog which is supposed to derive its origin from the bloodhound and the greyhound, the latter animal being employed in order to add lightness and speed to the exquisite scent and powerful limbs of the former. Sometimes the foxhound is used to cross with this animal.

It is a large and powerful Dog, possessed of very great capabilities of scent, and able, like the bloodhound, to hold to the trail on which it is laid, and to distinguish it among the footprints of a crowd. Despite of the infusion of greyhound blood, the Staghound is hardly so swift an animal as might be

conjectured from its proportions, and probably on account of its slow pace has fallen into comparative disrepute at the present day. Until the death of George III. the stag-chase was greatly in vogue; but since that time it has failed to attract the attention of the sporting world, and has gradually yielded to the greater charms of the foxhunt.

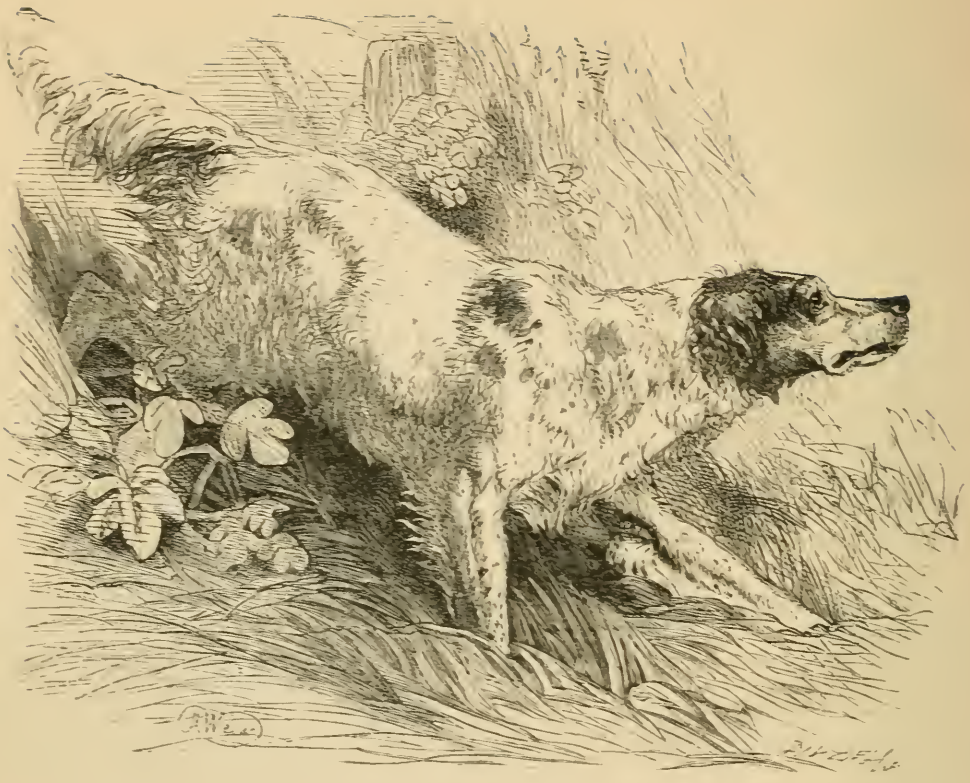
The real old English Staghound is now extremely rare, and is in danger of becoming entirely extinct. The Dog which is now used for the purpose of chasing the stag is simply a very large breed of the foxhound, which, on account of its superior length of limb, is more capable of matching itself against the swift-footed deer than the ordinary hound. These dogs are very powerful when in a good state of health, and have been known to achieve very wonderful feats of speed and endurance. They have been known to run for a distance of fifty miles in pursuit of a stag; and one memorable run is recorded, where the stag, and the only two hounds which kept to his trail, were found dead close to each other. The stag had made one powerful effort, had leaped over a park wall, which the dogs in their wearied state were unable to surmount, and had fallen dead just as it had gained a place of safety.

THE SETTER.

As the pointers derive their name from their habits of standing still and pointing at any game which they may discover, so the Setters have earned their title from their custom of "setting" or crouching when they perceive their game. In the olden days of sporting, the setter used always to drop as soon as it found the game, but at the present day the animal is in so far the imitator of the pointer, that it remains erect while marking down its game.

There are several breeds of these animals, among which the English, Irish, and the Russian Setters are the most notable.

The Russian Setter is a curious animal in appearance, the fur being so long and woolly in texture, and so thoroughly matted together, that the form of the Dog is rendered quite indistinct. It is by no means a common animal, and is but seldom seen. It is an admirable worker, quartering its ground very closely, seldom starting game without first marking them; and possessed of a singularly delicate nose. In spite of its heavy coat, it bears heat as well as the lighter-clad pointer, and better than the ordinary English Setters with their curly locks. When crossed with the English Setter it produces a mixed breed, which seems to be as near perfection as can be expected in a Dog, and which unites the good properties of both parents. A well-known sportsman when trying these Dogs against his own animal, which he fondly thought



SETTER.

unrivalled, found that the Russian animals obtained three points where his own Dog only made one, and that from their quiet way of getting over the ground they did not put up the birds out of gun-range, as was too often the case with his own swifter-footed Dogs.

The muzzle of this animal is bearded almost as much as that of the deer-hound and the Scotch terrier, and the overhanging hair about the eyes gives it a look of self-relying intelligence that is very suggestive of the expression of a Skye terrier's countenance. The soles of the feet are well covered with hair, so that the Dog is able to bear plenty of hard work among heather or other rough substances.

The Irish Setter is very similar to the English animal, but has larger legs in proportion to the size of the body, and is distinguished from its English relative by a certain Hibernian air that characterises it and which although conspicuous enough to a practised eye, is not easy of description.

While at work, the Setter has a strange predilection for water, and this fancy is carried so far in some Dogs that they will not go on with their work unless they can wet the whole of their coats once at least in every half-hour, If deprived of this luxury they pant and puff with heat and exertion, and are quite useless for the time.

It seems that the Setter is a less tractable pupil than the pointer, and even when taught is apt to forget its instructions and requires a second course of lessons before it will behave properly in the field. Owing to the rough coat and hair-defended feet of the Setter, it is able to go through more rough work than the pointer, and is therefore used in preference to that animal in the north of England and in Scotland,—where the heat is not so great as in the more southern countries,—where the rough stem of the heather would work much woe to a tender-footed Dog, and where the vicissitudes of the climate are so rapid and so fierce that they would injure the constitution of any but a most powerfully built animal.

This Dog, as well as the foxhound and harrier, is guided to its game by the odour that proceeds from the bird or beast which it is following ; but the scent reaches their nostrils in a different manner.

The foxhound, together with the harrier and beagle, follows up the odorous track which is left on the earth by the imprint of the hunted animal's feet or the accidental contact of the under-side of its body with the ground. But the pointer, Setter, spaniel, and other Dogs that are employed in finding victims for the gun, are attracted at some distance by the scent that is exhaled from the body of their game, and are therefore said to hunt by "Body-scent,' in contradistinction to the hounds who hunt by "foot-scent." The direction in which the wind blows is, therefore, a matter of some consequence, and is duly taken advantage of by every good sportsman.

SHEPHERD'S DOG.

The Most useful variety of the canine species is that sagacious creature on whose talent and energy depends the chief safety of the flock.

This animal seems to be, as far as can be judged from appearances, the

SHEPHERD'S DOG.

original ancestor of the true British Dogs, and preserves its peculiar aspect in almost every country in Europe. It is a rather large Dog, as is necessary, in order to enable the animal to undergo the incessant labour which it is called on to perform, and is possessed of limbs sufficiently large and powerful to enable it to outrun the truant members of the flock, who, if bred on the mountain-side, are so swift and agile that they would readily baffle the efforts of any Dog less admirably fitted by nature for the task of keeping them together.

As the sheep-dog is constantly exposed to the weather, it needs the protection of very thick and closely-set fur, which, in this Dog, is rather woolly in its character, and is especially heavy about the neck and breast. The

tail of the Sheep-dog is naturally long and bushy, but is generally removed in early youth, on account of the now obsolete laws, which refused to acknowledge any Dog as a Sheep-dog, or to exempt it from the payment of a tax, unless it were deprived of its tail. This law, however, often defeated its own object, for many persons who liked the sport of coursing, and cared little for appearances, used to cut off the tails of their greyhounds, and evade the tax by describing them as Sheep-dogs.

The muzzle of this Dog is sharp, its head is of moderate size, its eyes are very bright and intelligent, as might be expected in an animal of so much sagacity and ready resource in time of need. Its feet are strongly made, and sufficiently well protected to endure severe work among the harsh stems of the heather on the hills, or the sharply-cutting stones of the high-road. Probably on account of its constant exercise in the open air, and the hardy manner in which it is brought up, the Sheep-dog is perhaps the most untiring of our domesticated animals.

There are many breeds of this animal, differing from each other in colour and aspect, and deriving their varied forms from the Dog with which the family has been crossed.

Many of these animals are sad double-dealers in their characters, being by day most respectable Sheep-dogs, and by night most disreputable poachers. The mixed offspring of a Sheep-dog and setter is as silently successful in discovering and marking game by night as he is openly useful in managing the flocks by day. As he spends the whole of his time in the society of his master, and learns from long companionship to comprehend the least gesture of hand or tone of voice, he is far better adapted for nocturnal poaching than the more legitimate setter or retriever, and causes far more deadly havoc among the furred and feathered game. Moreover, he often escapes the suspicion of the gamekeeper by his quiet and honourable demeanour during the daytime, and his devotion to his arduous task of guarding the fold, and reclaiming its wandering members. It seems hardly possible that an animal which works so hard during the day should be able to pass the night in beating for game.

Sometimes there is an infusion of the bull-dog blood into the Sheep-dog, but this mixture is thought to be unadvisable, as such Dogs are too apt to bite their charge, and so to alienate from themselves the confidence of the helpless creatures whom they are intended to protect, and not to injure. Unless the sheep can feel that the Dog is, next to the shepherd, their best friend, the chief value of the animal is lost.

It is well observed by Mr. Youatt, in his valuable work on these Dogs,

that if the sheep do not crowd round the Dog when they are alarmed, and place themselves under his protection, there is something radically wrong in the management of the flock. He remarks, that the Dog will seldom, if ever bite a sheep, unless incited to do so by its master, and suggests that the shepherd should be liable to a certain fine for every tooth-mark upon his flock. Very great injury is done to the weakly sheep and tender lambs by the crowding and racing that takes place when a cruel Dog begins to run among the flock. However, the fault always lies more with the shepherd than with his Dog, for as the man is, so will his Dog be. The reader must bear in mind that the barbarous treatment to which travelling flocks are so often subjected is caused by drovers and not shepherds, who, in almost every instance, know each sheep by its name, and are as careful of its wellbeing as if it were a member of their own family. The Dogs which so persecute the poor sheep in their bewilderments among cross-roads and the perplexity of crowded streets, are in their turn treated by their masters quite as cruelly as they treat the sheep. In this, as in other instances, it is "like man and like Dog."

As a general rule, the Sheep-dog cares little for any one but his master, and so far from courting the notice or caresses of a stranger will coldly withdraw from them, and keep his distance. Even with other Dogs he rarely makes companionship, contenting himself with the society of his master alone.

The Scotch Sheep-dog, more familiarly called the Colley, is not unlike the English Sheep-dog in character, though it rather differs from that animal in form. It is sharp of nose, bright and mild of eye, and most sagacious of aspect. Its body is heavily covered with long and woolly hair, which stands boldly out from its body, and forms a most effectual screen against the heat of the blazing sun, or the cold sleety blasts of the winter winds. The tail is exceedingly bushy, and curves upwards towards the end, so as to carry the long hairs free from the ground. The colour of the fur is always dark, and is sometimes variegated with a very little white. The most approved tint is black and tan; but it sometimes happens that the entire coat is of one of those colours, and in that case the Dog is not so highly valued.

The "dew-claws" of the English and Scotch Sheep-dogs are generally double, and are not attached to the bone, as is the case with the other claws. At the present day it is the custom to remove these appendages, on the grounds that they are of no use to the Dog, and that they are apt to be rudely torn off by the various obstacles through which the animal is obliged to force its way, or by the many accidents to which it is liable in its laborious vocation.

It is hardly possible to overrate the marvellous intelligence of a well-taught Sheep-dog; for if the shepherd were deprived of the help of his Dog, his office

would be almost impracticable. It has been forcibly said by a competent authority that, if the work of the Dog were to be performed by men, their maintenance would more than swallow up the entire profits of the flock. They, indeed, could never direct the sheep so successfully as the Dog directs them; for the sheep understand the Dog better than they comprehend the shepherd. The Dog serves as a medium through which the instructions of the man are communicated to the flock; and being in intelligence the superior of his charge, and the inferior of his master, he is equally capable of communicating with either extreme.

One of these Dogs performed a feat which would have been, excusably, thought impossible, had it not been proved to be true. A large flock of lambs took a sudden alarm one night, as sheep are wont, unaccountably and most skittishly, to do, and dashed off among the hills in three different directions. The shepherd tried in vain to recall the fugitives; but finding all his endeavours useless, told his Dog that the lambs had all run away, and then set off himself in search of the lost flock. The remainder of the night was passed in fruitless search and the shepherd was returning to his master to report his loss. However, as he was on the way, he saw a number of lambs standing at the bottom of a deep ravine, and his faithful Dog keeping watch over them. He immediately concluded that his Dog had discovered one of the three bands which had started off so inopportunely in the darkness; but on visiting the recovered truants he discovered, to his equal joy and wonder, that the entire flock was collected in the ravine, without the loss of a single lamb.

The memory of the Shepherd's Dog is singularly tenacious, as may appear from the fact that one of these Dogs, when assisting his master, for the first time, in conducting some sheep from Westmoreland to London, experienced very great difficulty in guiding his charge among the many cross-roads and bye ways that intersected their route. But on the next journey he found but little hinderance, as he was able to remember the points which had caused him so much trouble on his former expedition, and to profit by the experience which he had then gained

MASTIFF.

The Mastiff, which is the largest and most powerful of the indigenous English Dogs, is of a singularly mild and placid temper, seeming to delight in employing its great powers in affording protection to the weak, whether they be

THE MASTIFF.

men or Dogs. It is averse to inflicting an injury on a smaller animal, even when it has been sorely provoked, and either looks down upon its puny tormenter with sovereign disdain, or inflicts just sufficient punishment to indicate the vast strength which it could employ, but which it would not condescend to waste upon so insignificant a foe.

Yet, with all this nobility of its gentle nature, it is a most determined and courageous animal in fight, and, when defending its master or his property, becomes a foe which few opponents would like to face. These qualifications of mingled courage and gentleness adapt it especially for the service of watch-dog, a task in which the animal is as likely to fail by overweening zeal as by neglect of its duty. It sometimes happens that a watch-dog is too hasty in its judgment,

and attacks a harmless stranger, on the supposition that it is resisting the approach of an enemy. Sometimes the bull-dog strain is mixed with the Mastiff, in order to add a more stubborn courage to the animal; but in the eyes of good judges this admixture is quite unnecessary.

It has already been mentioned that the Mastiff is fond of affording the benefit of its protection to those who need it. As, however, the Dog is but a Dog after all, it sometimes brings evil instead of good upon those who accept its guardianship.

During my school-boy days, a large Mastiff, called Nelson, struck up a great friendship with myself and some of my schoolfellows, and was accustomed to partake of our weekly banquets at the pastrycook's shop, and to accompany us in our walks. One summer, as we were bathing in the Dove, a man pounced upon our clothes, and would have carried them off, had it not been for the opportune assistance of some older lads of the same school, who captured the offender after a smart chase, and tossed him into the river until he was fain to cry for mercy.

In order to prevent a repetition of a similar mischance, we determined to take Nelson with us, and put him in charge of our clothes. The old Dog was delighted at the walk, and mounted sentry over the pile of garments, while we recreated ourselves in the stream, and caught crayfish or tickled trout at our leisure. Unfortunately, a number of cows had been placed in the field, and, after the usually inquisitive custom of cows, they approached the spot where Nelson was lying, in order to ascertain the nature of the strange object on the river bank. Nelson permitted them to come quite close, merely uttering a few warning growls, but when one of the cows began to toss a jacket with her horns, his patience gave way and he flew at the offender. Off scampered all the cows, but soon returned to the charge. Nelson stood firm to his post, only retreating a few steps as the cows approached the garments which he was guarding, and then dashing at them again. However, the cows' hoofs and the Dog's feet began to wreak such dire mischief among the clothes, that we found ourselves compelled to drive away the assailants and carry our clothes to the opposite bank of the river, where no cows could interfere with us.

The head of the Mastiff bears a certain similitude to that of the bloodhound and the bull-dog, possessing the pendent lips and squared muzzle of the bloodhound, with the heavy muscular development of the bull-dog. The under-jaw sometimes protrudes a little, but the teeth are not left uncovered by the upper lip, as is the case with the latter animal. The fur of the Mastiff is always smooth, and its colour varies between a uniform reddish-fawn and different brindlings and patches of dark and white. The voice is peculiarly deep and

mellow. The height of this animal is generally from twenty-five to twenty eight inches, but sometimes exceeds these dimensions. One of these Dogs was no less than thirty-three inches in height at the shoulder, measured fifty inches round his body, and weighed a hundred and seventy five pounds.

The CUBAN MASTIFF is supposed to be produced by a mixture of the true Mastiff with the bloodhound, and was used for the same purpose as the latter animal. It was not a native of the country where its services were brought into requisition, and from which it has consequently derived its name, but was imported there for the purposes of its owners, being taught to chase men instead of deer.

This Dog was employed with terrible success in the invasion of America, by the Spaniards, and was, in the eyes of the simple natives, a veritably incarnated spirit of evil, of which they had never seen the like, and which was a fit companion to those fearful apparitions which could separate themselves into two distinct beings at will, one with four legs and the other with two, and destroy them at a distance with fiery missiles, against which they were as defenceless as against the lightning from above.

Even in more recent times, the services of these Dogs have been rendered available against the rebel forces of Jamaica, when they rose against the government, and but for the able assistance of these fierce and sagacious animals would apparently have swept off the European inhabitants of the island.

TERRIER.—*Canis familiáris.*

THE TERRIER, with all its numerous variations of crossed and mongrel breeds, is more generally known in England than any other kind of Dog. Of the recognised breeds, four are generally acknowledged; namely, the English and Scotch Terriers, the Skye, and little Toy Terriers, which will be described in their order.

The ENGLISH TERRIER possesses a smooth coat, a tapering muzzle, a high forehead, a bright intelligent eye, and a strong muscular jaw. As its instinct leads it to dig in the ground, its shoulders and fore-legs are well developed, and it is able to make quite a deep burrow in a marvellously short time, throwing out the loose earth with its feet, and dragging away the stones and other large substances in its mouth. It is not a large Dog, seldom weighing more than ten pounds, and often hardly exceeding half that weight.

TERRIERS.

The Scotch Terrier is a rough-haired, quaint-looking animal, always ready for work or play, and always pleased to be at the service of its master. It is a capital Dog for those whose perverted taste leads them to hunt rats, or any other kind of "vermin," and is equally good at chasing a fox to earth, and digging him out when he fancies himself in safety. It was in former days largely employed in that most cruel and dastardly pursuit of badger-drawing, in which "sport" both the badger and the Dogs were so unmercifully wounded by the teeth of their antagonist, that even the winning Dog was often crippled, and the poor badger reduced to a state of suffering that would touch the heart of any but a hardened follower of these pursuits.

The quaint-looking Skye Terrier has of late years been much affected by all classes of Dog-owners, and for many reasons deserves the popularity which it has obtained.

When of pure breed the legs are very short, and the body extremely long in proportion to the length of limb; the neck is powerfully made, but of considerable length, and the head is also rather elongated, so that the total length of

the animal is three times as great as its height. The "dew-claws" are wanting in this variety of domestic Dog. The hair is long and straight, falling heavily over the body and limbs, and hanging so thickly upon the face that the eyes and nose are hardly perceptible under their luxuriant covering. The quality of the hair is rather harsh and wiry in the pure Skye Terrier.

The BULL-TERRIER unites in itself the best qualifications of the sporting Dogs, being very intelligent, apt at learning, delicate of nose, quick of eye, and of indomitable courage. In size it is extremely variable, some specimens being among the smallest of the canine tribes, while others measure as much as twenty inches in height. In this Dog it is quite unnecessary to have equal parts of the bull-dog and the Terrier; for in that case the progeny is sure to be too heavily made about the head and jaws, and not sufficiently docile to pay instant and implicit obedience to the commands of its master.

The mental powers of this Dog are very considerable, and the animal is capable of performing self-taught feats which argue no small amount of intellect. There are several examples of Dogs which could in some degree appreciate the object of money, and which would take a coin to the proper shop and exchange it for food. A well-known black-and-tan Terrier, which lately resided at Margate, and was named Prince, was accustomed to make his own purchases of biscuit as often as he could obtain the gift of a halfpenny for that purpose. On several occasions the baker whom he honoured with his custom thought to put him off by giving him a burnt biscuit in exchange for his halfpenny. The Dog was very much aggrieved at this inequitable treatment, but at the time could find no opportunity of showing his resentment. However, when he next received a halfpenny, he wended his way to the baker's as usual, with the coin between his teeth, and waited to be served. As soon as the baker proffered him a biscuit, Prince drew up his lips, so as to exhibit the halfpenny, and then walked coolly out of the shop, transferring his custom to another member of the same trade who lived on the opposite side of the road.

One of these Dogs, named Peter, an inhabitant of Dover, displays great ingenuity in adapting himself to the pressure of circumstances.

Several years since, he had the mishap to fall under the wheels of a carriage, and to be lamed in both his fore-legs. In consequence of this accident his limbs are so enfeebled that he cannot trust their powers in leaping, and therefore has taught himself to jump with his hind-legs alone, after the manner of a kangaroo. He can spring upon a chair or on a low wall without any difficulty and does so after the usual manner of Dogs. But when he is forced to return again to the earth he mistrusts his fore-limbs, and alights upon his hinder feet,

making one or two small leaps upon those members before he ventures to place his fore-feet on the ground. When he is accompanying his master in the fields, and comes to a gate or a gap in the wall, he dares not leap through the aperture, as most Dogs would do, but hops up, and then down again, upon his hind-feet alone.

WOLF.—*Canis lupus.*

Few animals have earned so widely popular, or so little enviable, a fame as the Wolves. Whether in the annals of history, in fiction, in poetry, or even in the less honoured, but hardly less important, literature of nursery fables, the Wolf holds a prominent position among animals.

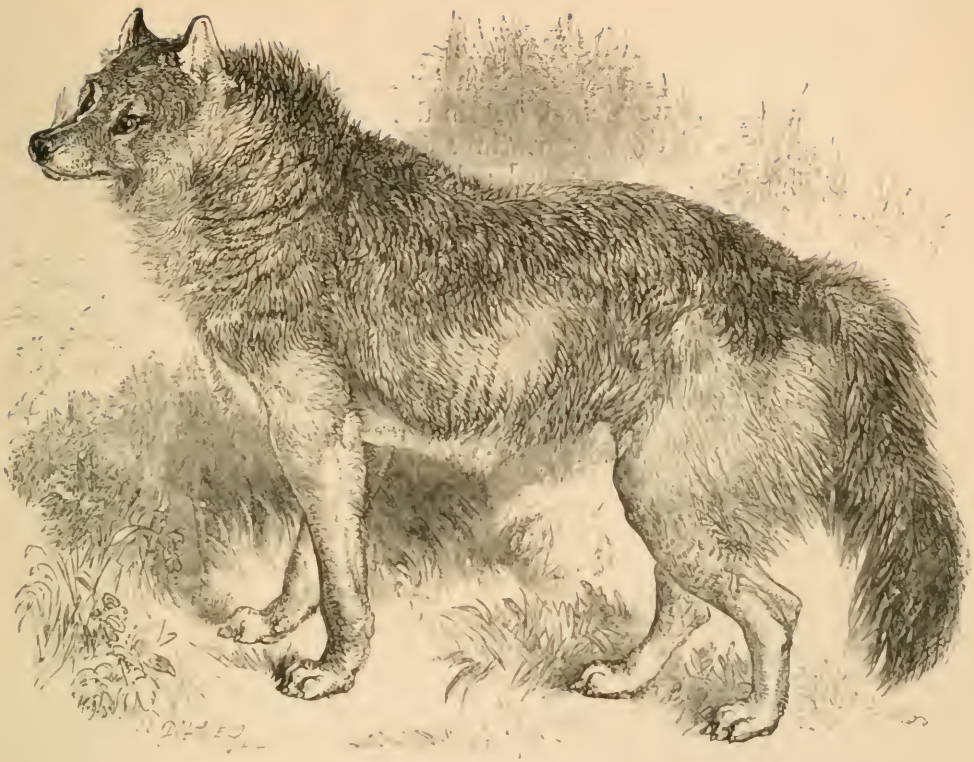
There are several species of Wolf found in the different parts of the world, and each species is liable to considerable varieties of size and colour. The common Wolf of Europe is generally grey, mingled with fawn, and the fur is sprinkled with scattered black hairs. The under parts of the animal are nearly white, changing to grey on the inside of the legs. These voracious and dangerous animals are found in almost every quarter of the globe; whether the country which they infest is heated by the beams of the tropical sun or frozen by the lengthened winter of the northern regions. Mountain and plain, forest and field, jungle and prairie, are equally infested with Wolves, which possess the power of finding nourishment for their united bands in localities where even a single predaceous animal may be perplexed to gain a livelihood.

When hungry—and the Wolf is almost always hungry—it is a bold and dangerous animal, daring almost all things to reach its prey, and venturing to attack large and powerful animals,—such as the buffalo, the elk, or the wild horse. Sometimes it has been known to oppose itself to other carnivora, and to attack so unpromising a foe as the bear. Mr. Lloyd records an instance of this presumption on the part of the Wolves.

During a bear-hunt, when the hunting party was led by a dog that was following the footsteps of a bear, a small herd of Wolves, few in number, suddenly made their appearance, pounced on the dog, and devoured it. They then took up the trail, and when they came up with the bear entered into battle with him. The fight terminated in favour of the bear; but not without much exertion and great danger to both parties, as was proved by the quantity of bear and Wolf fur that lay scattered about the scene of combat. So severely had the bear been treated, that his fur was found to be quite useless when he was killed by the hunters a few days after the conflict.

THE WOLF.

In their hunting expeditions the Wolves usually unite in bands, larger or smaller in number, according to circumstances, and acting simultaneously for a settled purpose. If they are on the trail of a flying animal, the footsteps of their prey are followed up by one or two of the Wolves, while the remainder of the band take up their positions to the right and left of the leaders, so as to intercept the quarry if it should attempt to turn from its course. Woe be to any animal that is unlucky enough to be chased by a pack of Wolves. No matter how swift it may be, it will most surely be overtaken at last by the long, slouching, tireless gallop of the Wolves; and no matter what may be its strength, it must at last fail under the repeated and constant attacks of the sharp teeth.



BLACK WOLF.—*Canis occidéntalis.*

The Black Wolf of America was thought by some naturalists to be only a variety of the common Wolf, but it is now considered to be a distinct species. Not only does the colour of its fur vary from that of the common Wolf, but there are various differences of structure, in the position of the eye, the peculiar bushiness of the hair, and other peculiarities, which have entitled it to rank as a separate species.

The American Wolves partake of the general lupine character, being fierce, dangerous, and cowardly, like their European brethren. They are marvellous cowards when they find themselves fairly inclosed; and even if their prison-house be a large yard they crouch timidly in the corners, and do not venture to attack a human being if he enters the same inclosure. Audubon mentions a

curious instance of this strange timidity in so fierce an animal, and of which he was an eye-witness.

A farmer had suffered greatly from the Wolves, and had determined to take his revenge by means of pitfalls, of which he had dug several within easy reach of his residence. They were eight feet in depth, and wider at the bottom than at the top. Into one of these traps three fine Wolves had fallen, two of them being black, and the other a brindled animal. To the very great astonishment of Mr. Audubon, the farmer got into the pit, pulled out the hind-legs of the Wolves, as they lay trembling at the bottom, and with his knife severed the chief tendon of the hind-limbs, so as to prevent their escape. The farmer was thus repaying himself for the damage which he had suffered, for the skins of the captured Wolves were sufficiently valuable to reimburse him for his labour and previous losses.

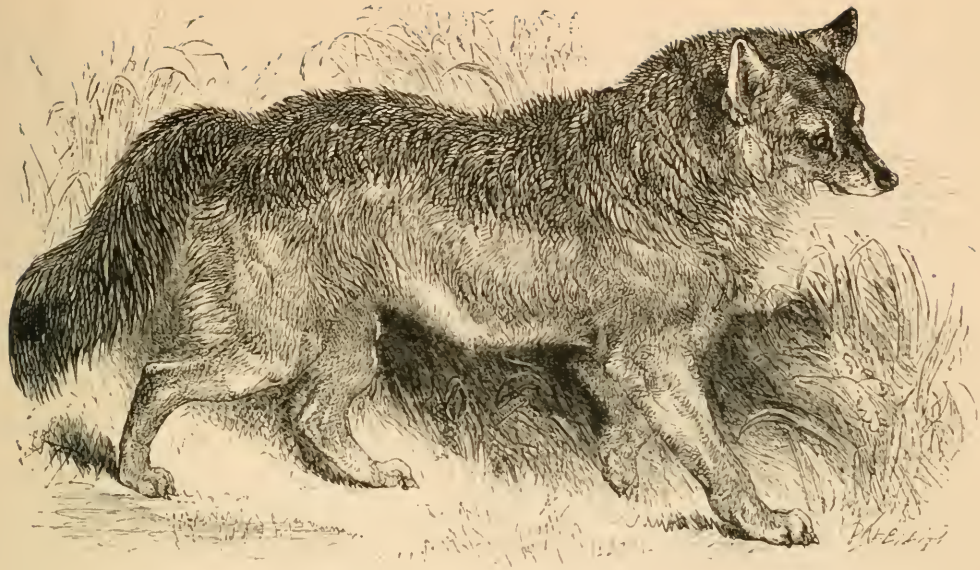
Among the Esquimaux the Wolves are caught in traps made of large blocks of ice, and constructed in precisely the same manner as an ordinary mousetrap with a drop-door. The trap is made so narrow that the Wolf cannot turn himself, and when he is fairly inclosed by the treacherous door, he is put to death by spears, which are thrust through interstices left for that purpose.

Bold as is the Wolf in ordinary circumstances, it is one of the most suspicious animals in existence, and is affected with the most abject terror at the sight of any object to which its eyes, nose, or ears are unaccustomed.

To this peculiarity have been owing, not only the preservation of game, but the lives of defenceless travellers. It has several times happened that a band of Wolves have been pressing closely upon the footsteps of their human quarry, and have been checked in their onward course by the judicious exhibition of certain articles of which the Wolves were suspicious, and from which they kept aloof until they had satisfied themselves of their harmlessness. As one article began to lose its efficacy, another was exhibited, so that the persecuted travellers were enabled to gain the refuge of some friendly village, and to baffle the furious animals by means which in themselves were utterly inadequate to their effects. A piece of rope, trailed from a horse or carriage, is always an object of much fear to the Wolves.

PRAIRIE WOLF.—*Canis latrans.*

There is a rather smaller species of Wolf, which is found in great numbers upon the American prairies, and named for that reason the Prairie Wolf. These animals are always found hanging on the outskirts of the numerous



PRAIRIE WOLF.

herds of bisons that roam the prairies, and pick up a subsistence by assailing the weakly and wounded members of the herd. Small as is each individual Wolf, it becomes a terrible assailant when backed by numbers, and seldom fails to bring to the ground any animal which may be unfortunate enough to attract its attention.

They also are in the habit of accompanying the hunters through their long journeys over the prairies, always hanging behind at respectful distances, and at night encamping within easy range of the fire. They seem never to injure the hunter or his horse, preferring to make use of his superior powers in procuring them a daily supply of food.

THE FOX.—*Vulpes vulgáris.*

The common Fox is one of the most familiar of wild British animals, and is the only large beast of prey that has not long since been extirpated from our island. Indeed it would long ago have perished had not a few individuals

been preserved by sportsmen. The cunning of the Fox is proverbial, and a whole volume might be filled with anecdotes of this animal and his wiles. When hunted, he uses every endeavour to baffle his pursuers, and to neutralize the effects of the powerful odour which emanates from his person.

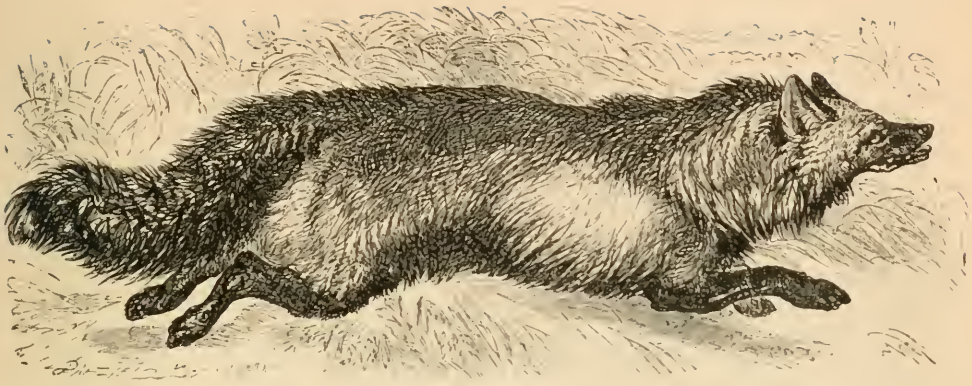
A hunted Fox will make the most extraordinary leaps in order to break the line of scent, and throw the hounds on a false track. It will run for a considerable distance in a straight line, return upon its own track, and then make a powerful spring to one side, so as to induce the dogs to run forward while it quietly steals away.

It will take every opportunity of perfuming, or rather of scenting, itself with any odorous substance with which it can meet, in the hope of making the hounds believe that they have mistaken their quarry. In fine, there are a thousand wiles which this crafty animal employs and which are related by every one who has watched a Fox or hunted it.

Even when tamed it preserves its singular cunning. A tame Fox, that was kept in a stable-yard, had managed to strike up a friendship with several of the dogs, and would play with them, but could never induce the cats to approach him. Cats are very sensitive in their nostrils, and could not endure the vulpine odour. They would not even walk upon any spot where the Fox had been standing; and kept as far aloof as possible from him.

The crafty animal soon perceived that the cats would not come near him, and made use of his knowledge to cheat them of their breakfast. As soon as the servant poured out the cats' allowance of milk, the Fox would run to the spot and walk about the saucer, well knowing that none of the rightful owners would approach the defiled locality. Day after day the cats lost their milk until his stratagem was discovered, and the milk was placed in a spot where it could not be reached by the Fox. There were three cats attached to the stables, and they all partook of the same detestation; so that their abhorrence of the Foxy odour seems to belong to the general character of cats, and not to be the fastidiousness of a single animal. He was also very successful in cheating the dogs of their food; achieving his thefts by the force of superior intellect.

The Fox resides in burrows, which it scoops out of the earth by the aid of its strong digging paws, taking advantage of every peculiarity of the ground, and contriving, whenever it is possible, to wind its subterranean way among the roots of large trees, or between heavy stones. In these "earths," as the burrows are called in the sportsman's phraseology, the female Fox produces and nurtures her young, which are odd little snub-nosed creatures, resembling almost any animal rather than a Fox.



AMERICAN FOX.—*Vulpes fulvus.*

The American Red Fox derives its name from the ruddy tinge of its fur.

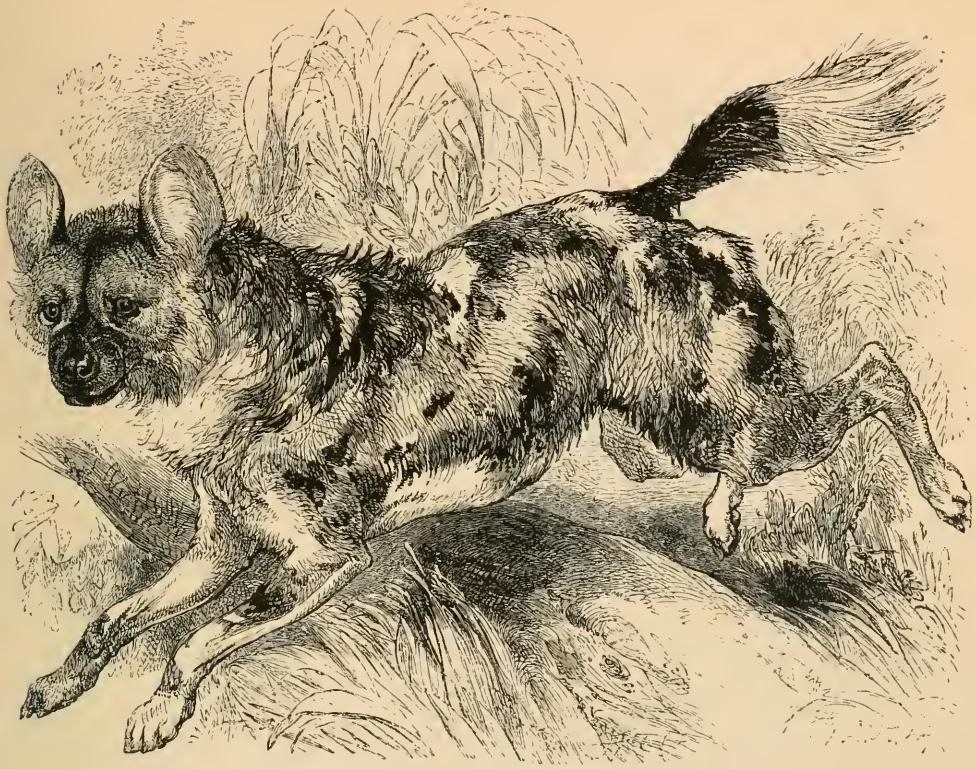
This animal has its full share of the crafty spirit which is so notable in the nature of all Foxes. One of them, on whose track the hounds had been often laid, used always to baffle them at one particular point, the crest of a rather steep hill. Up to this spot the scent was perfectly good; but at that particular spot the scent vanished, and so the Fox was lost. One of the disappointed hunters was so indignant at his repeated failures, that he determined to lay aside the chase for a day, and to devote himself to the discovery of the means by which the creature could so invariably escape from the hounds and men. He therefore concealed himself near the charmed spot, and watched with much interest the proceedings of the hunted animal.

The Fox, after being driven from his cover, led the hounds a long chase through woods, ponds, and thickets, and at last came at full speed towards the crest of the hill. As soon as he had reached the spot, he laid himself down and pressed himself as closely as possible to the ground. Presently the hounds came along in full cry, dashing over the hill in hot pursuit, and never stopping until they reached the bottom of the hill. As soon as the last hound had passed, the Fox resumed his legs, crept quietly over the brow of the hill, and returned to his covert at leisure.

OTOCYON.—*Otocyon Lalandii.*

The Otocyon, or Eared-Dog, derives its name from the very great proportionate length of its ears.

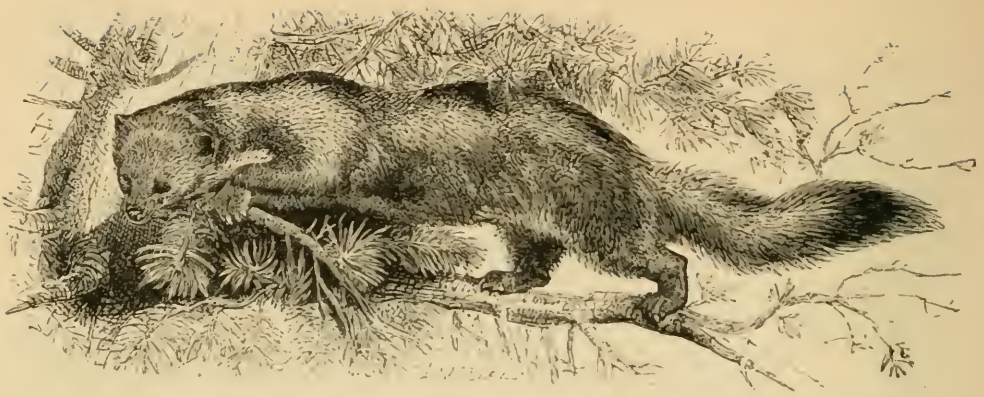
It is much smaller than the English Fox, and is of a tolerably uniform grey colour, except on the tail, which is covered with long, black hair, and on the limbs, which are of a darker hue than the body. The ears are erect, well covered with fur, and nearly equal to the head in length. It is an inhabitant of Southern Africa.



HUNTING-DOG.—*Lycáon venáticus.*

The Hunting-Dog, or Hyæna-Dog as it is often called, is an inhabitant of Southern Africa, where it bands together in great numbers, and procures its prey by fairly hunting it down. This animal is not unfrequently found to prefer the easy task of attacking a sheepfold or a cattle-pen to the more laborious though more legitimate pursuit of prey in the open country. In such a case, it does terrible damage in a single night, and the owner of flocks and herds will sometimes find when he visits his cattle in the morning that many of them have grieviously suffered from the inroads of these hungry animals.

The Hunting-Dogs are always very cautious in their approach when they are dealing with oxen, horses, or other powerful animals; but when they choose to make an onslaught upon a flock of sheep they use no precaution, and rush boldly to the hazardless enterprise. They are peculiarly addicted to biting off the tails of oxen, causing thereby no small present suffering, and very great future inconvenience.



PINE MARTEN.—*Martes abiëtum.*

The Weasel Tribe are all remarkable for their long slender bodies, their great activity in climbing and insinuating themselves through small orifices, their sharp teeth, their quickness of scent, and their singular rapacity. There are very many species of these animals, several of which are found in England.

One of the British Weasels is the Pine Marten, so called because it is generally found in those localities where the pine-trees abound, and is in the habit of climbing the pines in search of prey. It is a shy and wary animal, withdrawing itself as far as possible from the sight of man; and although a fierce and dangerous antagonist when brought to bay, is naturally of a timid disposition, and shuns collision with an enemy.

It is a tree-loving animal, being accustomed to traverse the trunks and branches with wonderful address and activity, and being enabled by its rapid and silent movements to steal unnoticed on many an unfortunate bird, and to seize it in its deadly gripe before the startled victim can address itself to flight. It is a sad robber of nests, rifling them of eggs and young, and not unfrequently adding the parent birds to its list of victims.

Even the active and wary squirrel sometimes yields up its life to this agile and stealthy foe; for in a hole which had been made the head-quarters of a Marten were found several of the bushy tails which are such familiar decorations of the squirrel's person.

The damage which a pair of Martens and their young will inflict upon a poultry-yard is almost incredible. If they can only gain an entrance into the fowl-house, they will spare but very few of the inhabitants. They will carry off an entire brood of young chickens, eat the eggs, and destroy the parents.

JAPANESE SABLE.—*Martes melánopus.*

The Sables are celebrated for their beautiful fur, and the great hardships which are undergone by the hunters in attaining it. The animals inhabit Southern climes, and as their fur is finest and longest in winter, the hunters are forced to brave the terrible frosts of those icy regions, and often perish in the chase.

A sudden and heavy snow-storm will obliterate in a single half-hour every trace by which the hunter had marked out his path, and, if it should be of long continuance, may overwhelm him in the mountain "drifts" which are heaped so strangely by the fierce tempests that sweep over those fearful regions. Should he not be an exceedingly experienced hunter, possessed of a spirit which is undaunted in the midst of dangers, and of a mind which is stored with the multitudinous precepts of hunters' lore, he is certain to sink under the accumulated terrors of his situation, and to perish by cold and hunger in the midst of the snow-sea that rolls in huge white billows over the face of the country.

THE POLECAT.—*Putorius fœtidus*

The Polecat has earned for itself a most unenviable fame, having been long celebrated as one of the most noxious pests to which the farmyard is liable. Slightly smaller than the marten, and not quite so powerful, it is found to be a more deadly enemy to rabbits, game, and poultry, than any other animal of its size.

It is wonderfully bold when engaged upon its marauding expeditions, and maintains an impertinently audacious air even when it is intercepted in the act of destruction. Not only does it make victims of the smaller poultry, such as ducks and chickens, but attacks geese, turkeys, and other larger birds with perfect readiness. This ferocious little creature has a terrible habit of destroying the life of every animal that may be in the same chamber with itself, and if it should gain admission into a henhouse will kill every one of the inhabitants, although it may not be able to eat the twentieth part of its victims. It seems to be very fond of sucking the blood of the animals which it destroys, and appears to commence its repast by eating the brains. If several victims should come in its way, it will kill them all, suck their blood, and eat the brains, leaving the remainder of the body untouched.

It is also called the Fitchet, a name which is well known to artists as being the title of the animal from whose fur their best brushes are produced.

The hairs from which the brushes are manufactured are those long, sharp, and glistening hairs which protrude through the soft coating of woolly fur that lies next the skin, and serve to preserve the animal from the effects of cold and moisture.

FERRET.—*Mustela Furo.*

The Ferret is well known as the constant companion of the rat-catcher and the rabbit-hunter, being employed for the purpose of following its prey into their deepest recesses, and of driving them from their strongholds into the open air, when the pursuit is taken up by its master.

When Ferrets are used for the purpose of hunting rabbits, their mouths are securely muzzled before they are permitted to enter the burrows; as, if their teeth were at liberty, they would in all probability kill the first rabbit which they met, and remain in the burrow for the purpose of sucking its blood. They are purposely kept without their ordinary meals before they are taken into the field, and are therefore especially anxious to secure their prey.

Although this animal can be partially tamed, it never seems to be really domesticated or trustworthy, and must always be looked upon with great suspicion. I well remember seeing a tame Ferret crawling about the person of its master, who was boasting of its tameness, and offered proofs of its fidelity by permitting it to touch his lips. Suddenly he uttered a sharp cry, for the animal had bitten completely through his lips, and deluged him with blood.

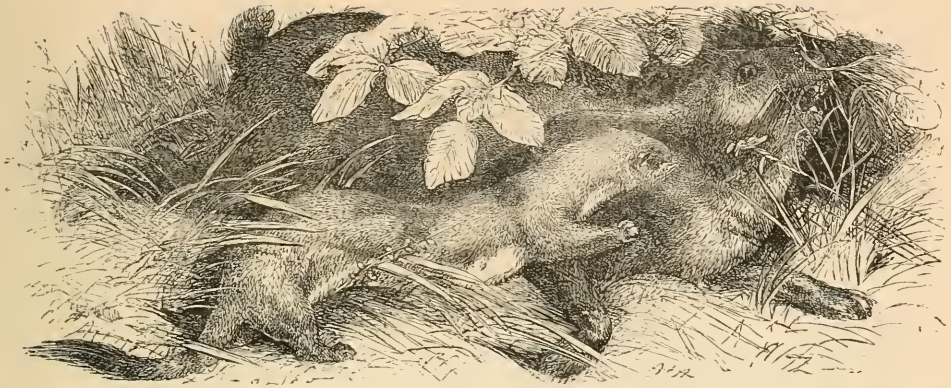
The Ferret is originally a native of Africa, and is most sensitive to cold, needing artificial means whereby it can be preserved from the cold air of our English climate, and perishing if it be exposed to the frosts of winter. When the Ferret is kept in a state of domestication, the box or hutch in which it resides must be amply supplied with hay, wool, or other warm substances, or the creature will soon pine away and die.

WEASEL.—*Mustéla vulgáris.*

There is hardly any animal which, for its size, is so much to be dreaded by the creatures on which it preys as the common Weasel. Although its diminutive proportions render a single Weasel an insignificant opponent to man or dog, yet it can wage a sharp battle even with such fearful foes, and refuses to yield except at the last extremity.

Like the polecat, and others of the same group of animals, the Weasel is most destructive in its nature, killing many more animals than it can devour, simply for the mere pleasure of killing. A single Weasel, urged by some such destructive spirit, has been known to make its way into a cage full of freshly-caught song-birds, and to destroy every single bird. The little assassin was discovered lying quite at its ease in a corner of the cage, surrounded with the dead bodies of its victims. The angry bird-catchers sought at once for a stone wherewith to avenge themselves of the destroyer, but before they could procure a weapon, the Weasel glided through one of the little holes through which the birds obtain access to the water, and was speedily concealed in a hedge beyond hope of discovery.

The audacity of this little creature is really remarkable. It seems to hold every being except itself in the most sovereign contempt, and, to all appearance, is as ready to match itself against a man as against a mouse. Indeed, it carries its arrogant little pretensions so far, that, if elephants were inhabitants of this country, the Weasel would be quite willing to dispute the path with them.



STOAT OR ERMINE.—*Mustela Erminea.*

The well-known Stoat of the British Isles is sufficiently familiar to us under its ordinary designation, and is celebrated throughout the world under its title of Ermine. In the extreme northern parts of Europe, and sometimes even in England, the fur of the Stoat becomes of a snowy whiteness during the winter months with the exception of the tail, which retains its jetty black tip, and the abdomen, which assumes a warm, creamy hue.

The Stoat is considerably larger than the Weasel, measuring rather more than fourteen inches in total length, of which the tail occupies rather more than four inches. There is, however, considerable difference in the size of various individuals.

It is a most determined hunter, pursuing its game with such pertinacious skill that it very seldom permits its intended prey to escape.

Although tolerably swift of foot, it is entirely unable to cope with the great speed of the hare, an animal which frequently falls a victim to the Stoat. Yet it is enabled, by its great delicacy of scent and the singular endurance of its frame, to run down any hare on whose track it may have set itself, in spite of the long legs and wonderful speed of its prey. When pursued by a Stoat, the hare does not seem to put forward its strength as it does when it is followed by dogs, but as soon as it discovers the nature of its pursuer, seems to lose all energy, and hops lazily along as if its faculties were benumbed by some powerful agency.

RATEL.—*Mellívora Ratel.*

The Honey-Ratel is celebrated from its propensity to rob the nest of the wild bees of their sweet contents, and is a native of Africa, where it is tolerably common. The thick, heavy fur with which the body is covered, forms an excellent defence against the stings of the bees, as they come from their nest and attack the enemy that is assaulting their home.

In every way, the Ratel is well adapted to the circumstances in which it is placed. Not being a swift animal, it cannot escape from foes by its speed; but if it can gain but a few minutes' respite, it can sink itself into the ground by the vigorous action of its powerful paws, and thus can avoid the attacks of almost any antagonist.

During the daytime, the Ratel remains in its burrow; but as evening begins to draw near, it emerges from its place of repose, and sets off on its bee-hunting expeditions. As the animal is unable to climb trees, a bee's nest that is made in a hollow tree-limb is safe from its attacks. But the greater number of wild bees make their nests in the deserted mansions of the termite, or the forsaken burrows of various animals. It is said that the Ratel finds its way towards the bees' nests by watching the direction in which the insects return towards their homes.

The Indian Ratel is said to be an extremely voracious animal, prowling about the vicinity of human habitations, and not unfrequently paying a visit to the burial-grounds in search of newly interred corpses.

WOLVERENE OR GLUTTON.—*Gulo Luscus.*

The Wolverene, more popularly known by the name of the Glutton, has earned for itself a world-wide reputation for ferocity.

Voracious it certainly is, having been known to consume thirteen pounds of meat in a single day, and it is probable that if the animal had been living in a wild state it could have eaten even a larger amount of food. It was said by the older naturalists to prey upon deer, which it killed by cunningly dropping on the ground a heap of the moss on which the deer feeds, and then climbing upon a branch which overhung the spot. As soon as the deer passed beneath the tree, the Glutton was said to leap upon its shoulders, and to cling there until it had brought the deer to the ground. This and similar tales, however, rest on no good foundation.

The Wolverene is an inhabitant of Northern America, Siberia, and of a great part of Northern Europe.

SAND BEAR.—*Arctonyx collāris.*

The curious animal whose portrait is presented to the reader is known under several titles, among which the Sand-Bear is that by which it will be designated in these pages. It is also called the Indian Badger, and sometimes the Balisaur. There is a very great resemblance between this animal and the well-known English badger, from which creature, however, it may easily be distinguished by the greater comparative length of its legs, and the more hog-like snout.

In its wild state the Sand-Bear is said to be fierce in disposition, and sufficiently powerful to beat off a dog that would not hesitate to attack a wolf or a hyæna. When attacked or irritated, the Sand-Bear raises itself on its hind legs, after the manner of the bears, and threatens its antagonist with its fore-limbs, in which it seems fully to trust. Its food is of a mixed character, but appears to be more of a vegetable than an animal nature. It is not a very common animal, and is generally found in the hill country.

The general colour of the fur of the Sand-Bear is a yellowish-white, diversified by two black bands that run on each side of the head, and unite by the muzzle. The upper of these bands includes the ear and eye in its course, and curves downwards at the shoulder, where it is nearly met by the dark hue of the fore-limbs.

BADGER.—*Meles taxus.*

The Badger is the largest of the weasel tribe that is found in England. Formerly it was very common, but it is now mostly to be found in forests and other retired spots where man does not often make his appearance.

Unlike the generality of the weasel tribe, the Badger is slow and clumsy in its actions, and rolls along so awkwardly in its gait that it may easily be mistaken for a young pig in the dark of the evening, at which time it first issues from its burrow. The digging capacities of the Badger are very great, the animal being able to sink itself into the ground with marvellous rapidity.

The Badger is very susceptible of human influence, and can be effectually tamed with but very little trouble. It is generally set down as a stupid animal, but in reality is possessed of considerable powers of reasoning. One of these animals has been known to set at defiance all the traps that were intended for its capture, and to devour the baits without suffering for its temerity.

The Badger feeds on animal and vegetable substances, and is very fond of the grubs and nests of the wasp and wild bee, which it digs out of the ground with its strong paws. It lives in a burrow, which it excavates, remaining there during the day, and only coming out in the evening.

OTTER.—*Lutra vulgaris.*

Although by no means a large animal, the Otter has attained a universal reputation as a terrible and persevering foe to fish. Being possessed of a very discriminating palate, and invariably choosing the finest fish that can be found in the locality, the Otter is the object of the profoundest hate to the proprietors of streams and all human fishermen. It is so dainty an animal that it will frequently kill several fish, devouring only those portions which best please its palate, and leaving the remainder on the banks to become the prey of rats, birds, or other fish-loving creatures.

When the Otter is engaged in eating the fish which it has captured, it holds the slippery prey between its fore-paws, and, beginning with the back of the neck, eats away the flesh from the neck towards the tail, rejecting the head, tail, and other portions. In well-stocked rivers, the Otter is so extremely fastidious that it will catch and kill four or five good fish in a single day, and eat nothing but the fine flaky meat which is found on the shoulders. The neighbouring rustics take advantage of this propensity, and make many a meal upon the fish which have been discarded by the Otter. Sometimes, as in the dry or the very cold seasons, the Otter is forced to lay aside its fastidious notions, and is glad to appease its hunger with any kind of animal food.

BROWN BEAR.—*Ursus arctos.*

The Bears form a small but conspicuous group of animals. They all attain considerable size, are mostly good climbers, are all capable of walking on their hind feet with great ease, and all possess long teeth and claws, and very short tails.

The best known of the Bears is the Brown Bear of Northern Europe. This animal is found plentifully in forests and the mountainous districts of many parts of Europe and Asia. In Scandinavia it is very common, and is a great pest to the farmers, whose cattle it is apt to kill and devour.

If captured when young, the Brown Bear is readily tamed, and is capable of mastering many accomplishments. It is a very playful animal, and seems to have a keen sense of the ludicrous, which sometimes causes it to overpass the bounds of good breeding. To its owner it displays a great affection, and can be trained to follow him about like a dog.

GRIZZLY BEAR.—*Ursus ferox.*

There are few animals which are so widely and deservedly dreaded as the Grizzly Bear. This terrible animal is an inhabitant of many portions of Northern America, and is the acknowledged superior of every animal that ranges over the same country.

All animals stand in great fear of this formidable beast, and display the greatest terror even at the sight or the scent of a Bear-skin that has been stripped from the body. Even the powerful bison falls a victim to the Grizzly Bear, which has been seen to spring upon the foremost bull of a herd, dash it to the ground, and destroy it by a succession of tremendous blows with its armed paws. Another of these animals contrived to carry off a bison that had been shot by a hunter, and, after dragging it to some distance from the spot where it fell, to bury it in a pit which it had dug for the reception of its prey.

POLAR BEAR.—*Thalarctos maritimus.*

The Polar Bear, White Bear, or Nennook, is an inhabitant of the Polar regions, where it may be found in great numbers.

Probably, in consequence of the extreme cold which prevails in the high latitude where this creature is found, its food is almost entirely of an animal nature, and consists of seals and fish of various kinds. It is a wonderfully good swimmer and diver, and while engaged in the pursuit of seals, it generally manages to surprise them by diving beneath the water, and only rising to the surface when within reach of its prey. The fur of this Bear is very valuable, and is used in making warm winter robes.

RACOON.—*Prócyon Lotor.*

The Racoon is an inhabitant of Northern America, where it is found in great numbers.

In its native state it is a great devourer of oysters, crabs, and other similar animals, displaying singular ingenuity in opening the stubborn shells of the oysters, or in dispatching the crabs without suffering from their ready claws. Sometimes it is said to fall a victim to the oyster, and to be held so firmly by the closing shells that it cannot extricate itself, and perishes miserably by the rising tide. As is indicated by the nature of its teeth, the Racoon is capable of feeding on animal or vegetable food, but seems to prefer the latter. Indeed there seem to be few things which the Racoon will not eat. One of these animals ate a piece of cedar pencil which it snatched out of my hand, and tried very hard to eat the envelope of a letter on which I was making notes.

It is also fond of water, drinking largely, and immersing its food, so as to moisten it as much as possible. When engaged in this curious custom it grasps the food in both its forepaws, and shakes it violently backward and forward in the water. On account of this remarkable habit it has been dignified with the title of Lotor, a washer. The German naturalists term it Wasch-Bar, or Washing-Bear.

NARICA OR QUASJE.—*Násua Nárica.*

The Coaitis are very curious animals, and are remarkable for their very long noses and tails, and their excellent climbing powers.

The extraordinary snout with which the Coaitis are gifted is very useful to the possessor, being employed for the purpose of rooting in the ground in search of worms and insects, together with other important uses. When they drink, the Coaitis lap the water after the manner of dogs, and when so engaged, turn up their flexible snouts, so as to keep that useful member from being wetted more than is necessary. They are inhabitants of Southern America, and are found in small companies upon the trees among which they reside, and on the thin branches of which they find the greater part of their food.

The Narica is a very lively and amusing animal, and possessed of singular powers of nose and limb. Distrustful by nature, it will very seldom venture to approach a strange object until it has endeavoured to ascertain the nature of the unknown, by means of its sense of smell, which is marvellously acute. It seems to be as inquisitive as it is distrustful, and will not be satisfied until it has by gradual degrees approached and examined anything which it does not quite understand. One of these animals, which was kept in confinement for some time was extremely tame to those who understood the peculiarity of its temper, but was irresistibly morose and sulky with those who would not respect its customs.

KINKAJOU OR POTTO.—*Cercoleptes caudivolvulus.*

The Kinkajou is an inhabitant of Southern America, and is spread over a very large extent of country. When full grown, the Kinkajou is equal to a large cat in size, but is very much stronger in proportion to the dimensions of its body.

The most remarkable point in this animal is the extreme length and flexibility of the tongue, which the creature is able to protrude to a marvellous extent, and which it can insinuate into the smallest crevices in search of the insects which have taken shelter therein. It is said that the animal employs its long tongue for the purpose of thrusting that organ into the bee-cells, and licking out the sweet contents of the waxen treasury. With its tongue it can perform many of the offices of an elephant's trunk, and will frequently seize and draw towards its mouth the articles of food which may be beyond the reach of its lips. It has also been seen to use its tail for the same purpose.

Assisted by its prehensile tail, the Kinkajou is an admirable and fearless climber, possessing the capability of suspending its body by the hinder feet and the tail, and remaining in this inverted attitude for a considerable space of time.

It is eminently nocturnal in its habits, being sadly distressed by the effects of daylight upon its eyes.

MOLE.—*Talpa Europæa.*

The Insect-Eaters form a very large group of animals, and are known by their long slender teeth.

The common Mole is found plentifully in England, and its presence may be known by the numerous little hills which it makes during its excavations.

As the Mole spends much of its time underground, and feeds on worms and other subterranean insects, its hearing needs to be exceedingly delicate. As however, vision would be of no use in the dark recesses of the earth, the eyes of the mole are very small, in order to prevent them from being injured by the earth through which the animal makes its way. When, however, the mole requires to use its eyes it can bring them forward from a mass of fur which conceals and protects them when not in use. The acute ears and delicate sense of smell supply the place of eyes.

The Mole is a most voracious animal, and is incapable of sustaining even a slight fast. Its principal food is the earth-worm, in chase of which it drives its long galleries underground; but it also will eat insects, bits of meat, and is said sometimes to catch birds, which it takes by surprise, and then rapidly tears to pieces with its powerful claws.

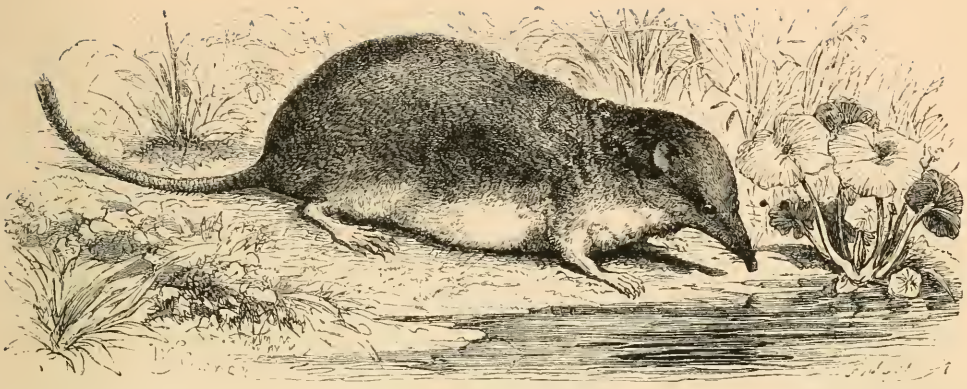
Dull and harmless as it may appear to be, it is in reality one of the most ferocious animals in existence, and will engage in the fiercest combats upon very slight provocation. While thus employed, its whole faculties are so entirely absorbed in its thirst for revenge, that it will leave the subterraneous shafts which it has been so busily excavating, and join battle with its foe in the full light of day. Should one of the combatants overpower and kill the other, the victorious Mole springs upon the vanquished enemy, tears its body open, and eagerly plunging its nose into the wound, drinks the blood of its slaughtered enemy, and feasts richly on the sanguinary banquet.

ELEPHANT SHREW.—*Macroscélides proboscídeus.*

The Elephant Shrew is a native of Southern America.

The legs are nearly of equal size, but the hinder limbs are much longer than the fore-legs, on account of the very great length of the feet, which are capable of affording support to the creature as it sits in an upright position. As might be presumed from the great length of the hinder limbs, the Elephant Shrew is possessed of great locomotive powers, and when alarmed, can skim over the ground with such celerity that its form becomes quite obscured by the rapidity of its movement through the air. Its food consists of insects, which it captures in open day.

Although the Elephant Shrew is a diurnal animal, seeking its prey in broad daylight, its habitation is made below the surface of the ground, and consists of a deep and tortuous burrow, the entrance to which is a perpendicular shaft of some little depth. To this place of refuge the creature always flies when alarmed, and as it is so exceedingly swift in its movements, it is not readily captured or intercepted.



WATER SHREW.—*Crossopus fódiens.*

The Water Shrew is rather common in many parts of England, and may be seen disporting itself by the sides of streams. The Water Shrew finds its food in various ways. Sometimes it burrows in the muddy river banks, rooting in the soft earth with its elongated nose, and dislodging the larvæ of certain insects that pass that stage of their existence in the mud. It also chases and captures various aquatic insects as they move through the water, and will not disdain to feed upon moths and other similar creatures which have fallen or have been blown into the water and there drowned.

In all its movements, the Water Shrew is extremely graceful and active, displaying equal agility, whether its movements be terrestrial or aquatic. As the sphere of its vision does not appear to be very extended, it can easily be approached while it is engaged in its little gambols, and can be watched without much difficulty.

I have repeatedly observed the proceedings of a little colony of these creatures, and was able to sit within a yard or two of their haunts without their cognizance of my presence. They are most sportive little creatures, and seem to enjoy a game of play with thorough appreciation, chasing each other over the ground and through the water, running up the stems of aquatic plants, and tumbling off the leaves into the water, scrambling hastily over the stones around which the stream ripples, and playing a thousand little pranks with the most evident enjoyment. Then they will suddenly cease their play, and begin to search after insects with the utmost gravity, rooting in the banks, and picking up stray flies, as if they never had any other business in view.

HEDGEHOG.—*Erinaceus Europeus.*

The common Hedgehog is well known throughout this country, and is remarkable for the array of spears which beset its body, and which project on all sides when the animal rolls itself into a ball after its curious fashion.

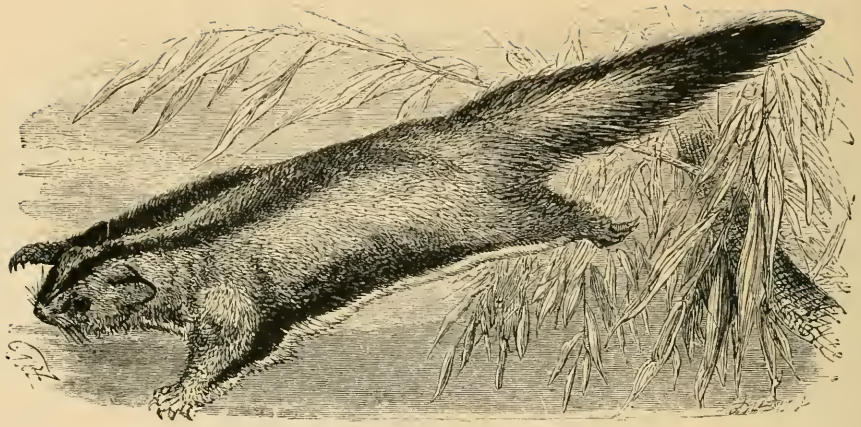
According to the generality of writers, among whom we may reckon Mr. White, the immortalizer of Selborne, the food of the Hedgehog is not entirely animal, but is varied with sundry vegetable substances, such as roots, haws, crabs, and other wild fruit. The Hedgehog also eats birds, insects, and reptiles.

On one occasion, when a Hedgehog was employed in the demolition of a snake, it proceeded in a remarkably cautious manner, as if it had been a practised combatant, and had learnt how to inflict injury on its foe without suffering in return. On being roused by the touch of the snake, the Hedgehog—which had been coiled up—unrolled itself, bit the snake sharply, and immediately resumed its coiled attitude. Three times it repeated this proceeding, and when after the third bite the snake's back was bitten through, the Hedgehog stood by the side of its victim, and deliberately crushed the snake's body throughout its entire length by biting it at intervals of about half an inch. Having thus placed itself beyond the reach of retaliation, it took the tip of the snake's tail in its mouth, began to eat it, and finished the reptile in the course of twenty-four hours.

OPOSSUM MOUSE.—*Acrobates Pygmæus.*

The Pouched Animals are remarkable for a little pouch or pocket upon the abdomen; it is used for carrying the young until they are old enough to shift for themselves. Nearly all the pouched animals inhabit Australia. Among the prettiest and most common is the beautiful little animal which is called the Opossum Mouse in some parts of the country, and the Flying Mouse in others.

This pretty little creature is about the size of our common mouse, and when it is resting upon a branch, with its parachute, or umbrella of skin, drawn close to the body by its own elasticity, it looks very like the common mouse of Europe, and at a little distance might easily be taken for that animal. In total length it rather exceeds six inches. The parachute-like expansion of the skin is of very great service to the animal when it wishes to pass from one branch, or from one tree, to another, without the trouble of descending and the laborious climbing up again. Trusting to the powers of its parachute, the little creature will boldly launch itself into the air, stretching out all its limbs, and expanding the skin to the utmost. Upborne by this membrane, the Opossum Mouse can sweep through very great intervals of space, and possesses no small power of altering its course at will.



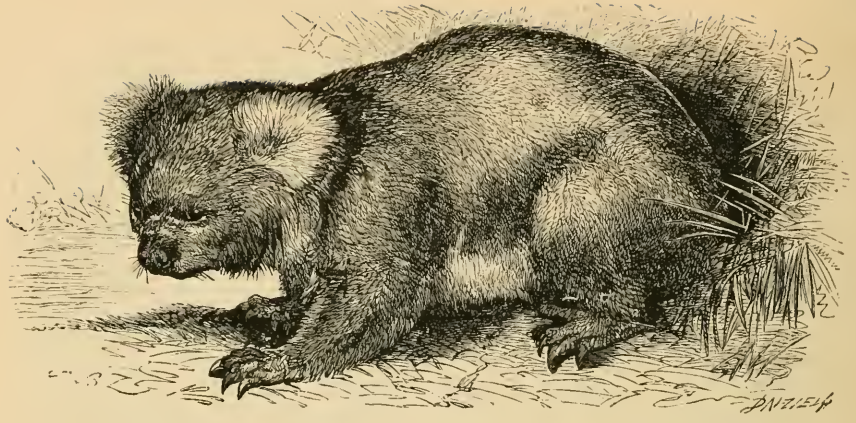
SUGAR SQUIRREL.—*Petaurus Sciureus.*

The Sugar Squirrel is a nocturnal animal, and is seldom seen in the daytime. During the hours of daylight it remains concealed in one of the hollow branches of the enormous trees that grow in its native country, and can only be detected in its retreat by the marvellous organs of vision with which the native Australians are gifted. As soon as evening comes on, the Sugar Squirrels issue from their darksome caverns, and immediately become very frolicsome, darting from tree to tree, and going through the most extraordinary and daring evolutions with admirable ease.

It seems to be a gamesome little animal, and fond of the society of its own species, although it does not appear to respond very readily to the caresses or advances of human playfellows. Being fond of society, the Sugar Squirrels associate in small companies as soon as they emerge from their retreats, and thus are enabled to enjoy their graceful pastime to their hearts' content. Any cage, however, must be most annoying to these active little creatures, who are accustomed to sweep through very considerable spaces in their leap. Mr. Bennett remarks, that the Sugar Squirrel has been known to leap fairly across a river forty yards in width, starting from an elevation of only thirty feet.

SOOTY PHALANGIST.—*Phalangista fuliginósa.*

The Tapoa, or Sooty Phalangist is tolerably common in Van Dieman's Land, where it is much sought after on account of its skin, which is highly valued by white and black men for the purpose of being manufactured into a soft, warm, and beautiful fur.



KOALA, OR AUSTRALIAN BEAR.—*Phascolarctos cinéreus.*

The Koala is not nearly so widely spread as most of the preceding animals, as it is never known to exist in a wild state except in the south-eastern regions of Australia.

Although well adapted by nature for climbing among the branches of trees, the Koala is by no means an active animal, proceeding on its way with very great deliberation, and making sure of its hold as it goes along. Its feet are peculiarly adapted for the slow but sure mode in which the animal progresses among the branches by the structure of the toes of the fore-feet or paws, which are divided into two sets, the one composed of the two inner toes, and the other of the three outer, in a manner which reminds the observer of the feet of the climbing birds and the chameleon. This formation, although well calculated to serve the animal when it is moving among the branches, is but of little use when it is upon the ground, so that the progress of the Koala is especially slow, and the creature seems to crawl rather than walk.

As far as is yet known, its food is of a vegetable nature, and consists chiefly of the young leaves, buds, and twigs of the gum-trees. When it drinks, it laps like a dog.

It seems to be a very gentle creature, and will often suffer itself to be captured without offering much resistance, or seeming to trouble itself about its captivity.

KANGAROO.—*Macropus major.*

Among the largest of the pouched animals is the well-known Kangaroo. It has long been celebrated for its curious method of leaping, and for its great speed.

As the Kangaroo is a valuable animal, not only for the sake of its skin, but on account of its flesh, which is in some estimation among the human inhabitants of the same land, it is eagerly sought after by hunters, both white and black, and affords good sport to both on account of its speed, its vigour, and its wariness. The native hunter, who trusts chiefly to his own cunning and address for stealing unobserved upon the animal and lodging a spear in its body before it is able to elude its subtle enemy, finds the Kangaroo an animal which will test all his powers before he can attain his object, and lay the Kangaroo dead upon the ground.

The full-grown male Kangaroo is popularly called the Boomer, and is much hunted by the white colonists.

ROCK KANGAROO.—*Petrógalè penicilláta.*

One of the most singular of this singular group of animals is the Rock Kangaroo.

The agility with which this animal traverses the dangerous precipices among which it lives is so very great, that when the creature is engaged in skipping about the craggy rocks that shroud its dwelling-place from too vigilant eyes, it bears so close a resemblance to a monkey in its movements, that it has, on many occasions, been mistaken for that active animal.

By means of its great capabilities of climbing, the Rock Kangaroo is enabled to baffle the efforts of its worst foes, the dingo and the native black man. In vain does the voracious and hungry dingo set off in chase of the Rock Kangaroo, for as soon as the creature has gained the shelter of its rocks, it bounds from point to point with an agility which the dingo can by no means emulate, and very soon places itself in safety, leaving its baffled pursuer to vent its disappointment in cries of rage.

BRUSH-TAILED BETTONG.—*Bettongia penicillata.*

The Brush-tailed Bettong is a nocturnal animal, and lies curled up during the entire day, issuing forth from its nest as the shades of evening begin to draw on. The nest of the Brush-tailed Bettong is a very ingenious specimen of architecture, and is so admirably constructed, that it can hardly be detected by a European eye, even when it is pointed out to him. The native, however, whose watchful eye notes even the bending of a leaf in the wrong place, or the touch of a claw upon the tree trunk, seldom passes in the vicinity of one of these nests without discovering it and killing its inmates, by dashing his tomahawk at random into the mass of leaves and grass.

The manner in which the animal conveys the materials of its nest to the spot where they are required is most remarkable. After selecting a proper supply of dried grass, the creature makes it up into a sheaf, and twisting her prehensile tail round the bundle, hops away merrily with her burden. It is almost impossible to comprehend the extreme quaintness of the aspect which is presented by a Jerboa Kangaroo engaged in this manner without actual experience, or the aid of a very admirable and spirited drawing. When the animal has completed its nest, and the young are lying snugly in its warm recesses, the young family is effectually concealed from sight by the address of the mother, who invariably drags a tuft of grass over the entrance whenever she leaves or enters her grassy home.

WOMBAT.—*Phascólomys ursínus.*

As might be imagined from its heavy body and short legs, the Wombat is by no means an active animal, but trudges along at its own pace, with a heavy rolling waddle or hobble, like the gait of a very fat bear. It is found in almost all parts of Australia, and is rather sought after for the sake of its flesh, which is said to be tolerably good, although rather tough, and flavoured with more than a slight taint of musk. The colour of the Wombat is grey, mottled with black and white. The under parts of the body are greyish white, and the feet are black. The muzzle is very broad and thick. The length of the animal is about three feet, the head measuring seven inches.

In its temper the Wombat is tolerably placid, and will permit itself to be captured without venting any display of indignation. Sometimes, however, it is liable to violent gusts of rage, and then becomes rather a dangerous antagonist, as it can scratch most fiercely with its heavy claws, and can inflict tolerably severe wounds with its chisel-like teeth.

Generally, the Wombat is not a very intelligent animal, and exhibits but little emotion of any kind, seeming to be one of the most apathetic animals in existence.

LONG-NOSED BANDICOOT.—*Perámeles nasúta.*

The Bandicoots form a little group of animals that are easily recognisable by means of their rat-like aspect, and a certain peculiar, but indescribable mode of carrying themselves. The gait of the Bandicoot is very singular, being a kind of mixture between jumping and running, which is the result of the formation of the legs and feet. During progression, the back of the creature is considerably arched. The snout is much lengthened and rather sharply pointed.

These animals are very widely spread over the eastern and south-eastern parts of Australia, but are mostly found in the interior.

The food of the Long-nosed Bandicoot is said to be of a purely vegetable nature, and the animal is reported to occasion some havoc among the gardens and granaries of the colonists. Its long and powerful claws aid it in obtaining roots, and it is not at all unlikely that it may, at the same time that it unearths a root, seize and devour the larvæ which are found in almost every square inch of ground. The lengthened nose and sharp teeth which present so great a resemblance to the same organs in shrews, afford good reasons for conjecturing that they may be employed in much the same manner.

TASMANIAN WOLF.—*Paracyon Cynocephalus.*

The Tasmanian Wolf, although not perhaps the fiercest of the pouched animals, is the largest and the most powerful, well deserving the title with which it has been by common consent designated, and representing in Tasmania the true wolves of other countries. It is not a very large animal, as needs must be from the nature of the country in which it lives, for there would be but small subsistence in its native land for herds of veritable wolves, and the natural consequence would be that the famished animals would soon take to eating each other in default of more legitimate food, and so thin down the race or destroy it altogether.

CRAB-EATING OPOSSUM.—*Philander Cancrivorus.*

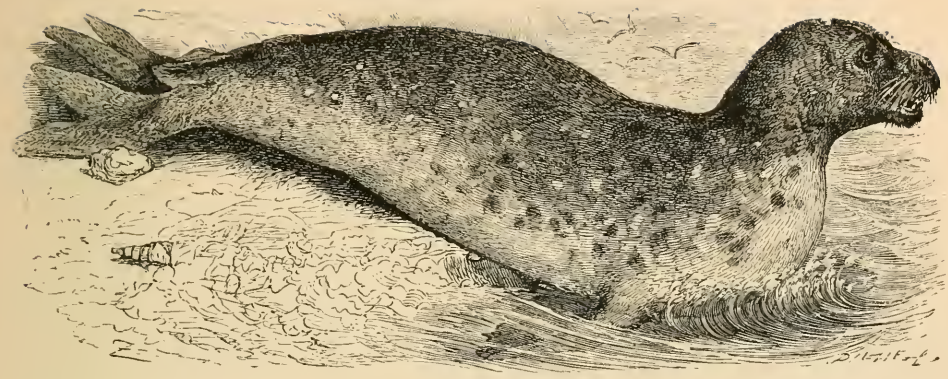
The Crab-Eating Opossum is a native of tropical America, and is found very numerously in the Brazils. It is peculiarly fitted for a residence on trees, and is never seen to proper advantage except when traversing the boughs, or swinging among the branches by means of its peculiarly prehensile tail. While it is engaged in its arboreal wanderings, it always takes care to twine its tail firmly round the nearest object that is capable of affording a firm hold, and thus secures itself against any unfortunate slip of its paws.

MERIAN'S OPOSSUM.—*Philander Dorsígerus.*

In Merian's Opossum there is no true pouch, and the place of that curious structure is only indicated by a fold of skin, so that during the infancy of its young, the mother is obliged to have recourse to that singular custom which has gained for it the title of "dorsigerus," or back-bearing. At a very early age, the young Opossums are shifted to the back of their mother, where they cling tightly to their mother's fur with their little hand-like feet, and further secure themselves by twining their own tails round that of the parent.

The little group which is here given, was sketched from a stuffed specimen in the British Museum, where the peculiar attitude of mother and young is wonderfully preserved, when the very minute dimensions of the young Opossums are taken into consideration.

It is a very small animal, measuring six inches from the nose to the root of the tail, the tail itself being more than seven inches in length, thus exceeding the united measurement of the head and body. Its general appearance is much like that of a very large mouse, or a very small rat.

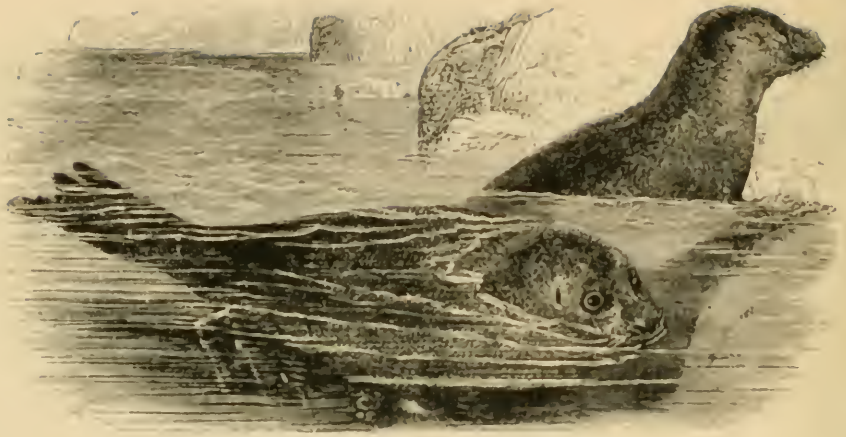


SEA LEOPARD.—*Léptonyx Weddéllii.*

The Seals are the first of a series of animals, which although they breathe atmospheric air, and possess warm blood, yet live chiefly in the water, and are never seen except in the water or in its immediate neighbourhood. The legs are developed like fins, and their bodies are covered thickly with fat, in order to protect them against the effects of the water, in which they spend so much of their time. They nearly all feed upon fish, which they chase in the water.

The true Seals are found only in the sea, and at the mouths of various large rivers, and are wonderfully abundant in the polar regions. None of them are known to inhabit the tropical parts of the earth. Several species have been known to occur upon our own shores, more especially on the more northern coasts, and the common Seal, *Phoca vitulina*, is found in great numbers around the northern British shores.

The Sea Leopard, or Leopard Seal, is distinguishable from the other Seals by means of its comparatively slender neck, and the wider gape of its mouth, which opens further backward than is generally the case among these animals. The body is rather curiously formed, being slender at the neck and largest towards the middle, from whence it tapers rapidly to the short and inconspicuous tail.



COMMON SEAL.—*Phoca vitulina.*

The Common Seal is spread very widely over many portions of the globe, and is of very frequent occurrence upon our own coasts, where it is found in considerable numbers, much to the annoyance of the fishermen, who look upon it with intense hatred, on account of the havoc which it makes among the fish.

The Seal is also a good natural barometer, and by its movements indicates to a practised eye the forthcoming changes in the weather. Whenever an old Seal is seen rolling and tumbling along a bank, a storm of wind and rain is sure to ensue before many hours have passed.

The Common Seal is very easily tamed, and speedily becomes one of the most docile of animals, attaching itself with strong affection to its human friends, and developing a beautifully gentle and loving nature, hardly to be expected in such an animal. Many of these creatures have been taken when young, and have been strongly domesticated with their captors, considering themselves to belong of right to the household, and taking their share of the fireside with the other members of the family.

WALRUS.—*Trichecus Rosmarus.*

Among all the strange forms which are found among the members of this family, there is none which presents a more terribly grotesque appearance than that of the Walrus, Morse, or Sea Horse, as this extraordinary animal is indifferently termed.

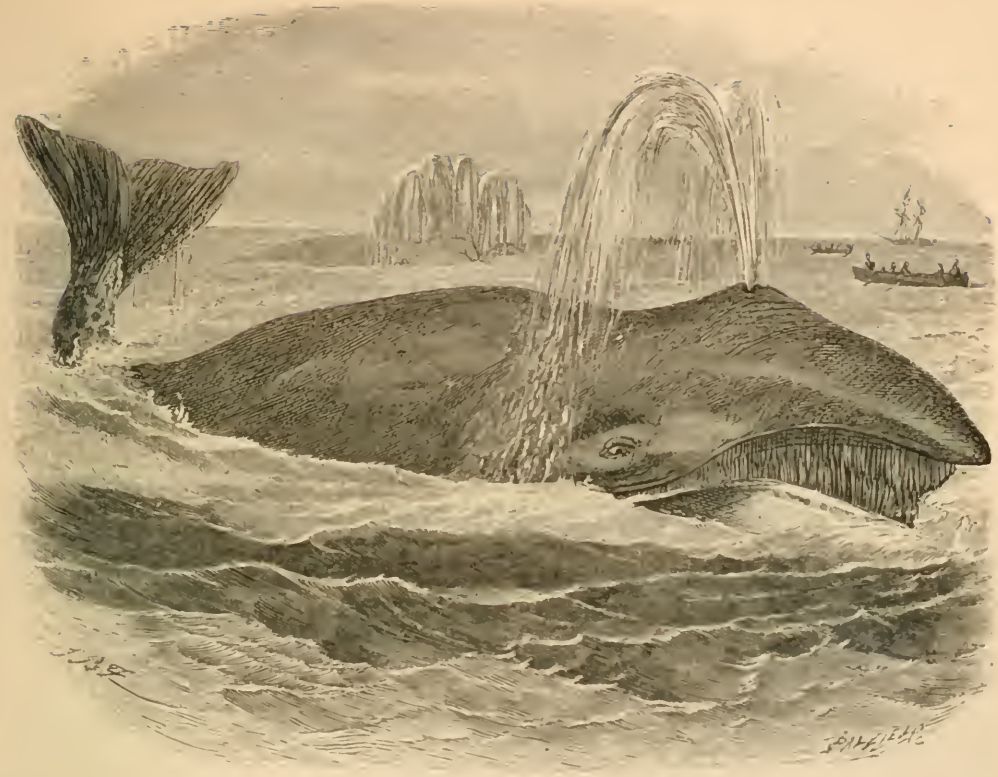
The Walrus is found in vast herds, which frequent the coasts of the arctic and antarctic regions, and which congregate in such numbers that their united roarings have often given timely warning to fog-bewildered sailors, and acquainted them with the near proximity of shore.

SEA ELEPHANT.—*Morunga Proboscidea.*

Another powerful and grotesque Seal now engages our attention. This is the Elephant Seal, or Sea Elephant, so called not only on account of the strange prolongation of the nose, which bears some analogy to the proboscis of the elephant, but also on account of its elephantine size. Large specimens of this monstrous Seal measure as much as thirty feet in length, and fifteen or eighteen feet in circumference at the largest part of their bodies.

This animal inhabits the southern hemisphere, and is spread through a considerable range of country. It is extensively hunted for the sake of its skin and its oil, both of which are of very excellent quality, and, from the enormous size of the animal, can be procured in large quantities. It is not exclusively confined to the sea, but is also fond of haunting fresh-water lakes, or swampy ground, as is depicted in the engraving.

The Elephant Seal is easily tamed when young, and displays great affection towards a kind master. One of these animals was tamed by an English seaman, and would permit its master to mount upon its back, or to put his hand into its mouth without doing him any injury.



GREENLAND WHALE.—*Balæna mysticétus.*

The Whales are more thoroughly aquatic than any other animals that have already been described, and are consequently framed in such a fish-like manner that they have generally been considered as fishes by those who were but little acquainted with the animal kingdom. The entire livelihood of the Whale is obtained in the waters, and their bodily structure is only fitted for traversing the waves, so that if they should happen to be cast upon the shore they have no means of regaining their native element, and are sure to perish miserably from hunger.

The Greenland Whale, Northern Whale, or Right Whale, as it is indifferently termed, is an inhabitant of the Northern Seas, where it is still found in great abundance, although the constant persecutions to which it has been subjected for the sake of obtaining its oil and whalebone have considerably thinned its numbers.

BLACK FISH.—*Physeter Tursio.*

There are many kinds of Whales, among which may be mentioned the Spermaceti Whale, the Rorqual, the Pike Whale, and the creature which is represented in our engraving.

This species is of considerable dimensions when adult, as it is known to measure from fifty to sixty feet in length. In the lower jaw is a bountiful supply of teeth, white, powerful, and conical. These teeth are very variable in number in different individuals, varying altogether from twenty-two to forty-four. An equal number of sockets are placed in the upper jaw, into which the conical teeth are received when the mouth is closed. Some of these teeth often exceed nine inches in length, and weigh more than eighteen ounces when perfectly dried.

The root of each tooth is hollow in the centre to the depth of several inches, and is so deeply buried in the jaw, that the projecting portion of the largest tooth rarely exceeds three inches. The teeth range from seven to nine inches in length.

PORPOISE.—*Phocæna communis.*

Most familiar of all the Dolphin tribe is the well-known Porpoise, or Sea Hog, an animal which may be seen on any of our coasts, tumbling about on the waves, and executing various gambols in the exuberance of its sportive feelings.

The Porpoise is a very gregarious animal, herding together in large shoals, and sometimes swimming in "Indian file" as they shoot over the surface of the sea; just showing their black and glossy backs above the water, and keeping such excellent line that they seem to be animated by one spirit and one will.

As might be presumed from the formidable array of sharp teeth with which the jaws are studded, and which are so arranged that the upper and lower sets interlock when the animal closes its mouth, the food of the Porpoise consists entirely of animal substances, and almost wholly of fish, which it consumes in large quantities, much to the disgust of human fishermen. Herrings, pilchards, sprats, and other saleable fish, are in great favour with the Porpoise, which pursues its finny prey to the very shores, and, diving among the vast shoals in which these fish congregate, destroys enormous quantities of them.

MANATEE.—*Manatus Australis.*

The Manatee, or Lamantine, is a very strange-looking creature, appearing like a curious mixture of several dissimilar animals, the seal and the hippopotamus being predominant.

There are several species of Manatee, two of which are found in America and one in Africa, but always on those shores which are washed by the waters of the Atlantic Ocean. The common Manatee is generally about nine or ten feet in length, and is remarkable for the thick fleshy disc which terminates the muzzle, and on which the nostrils are placed. It is found in some plenty at the mouths of sundry large rivers, such as the Orinoko or the Amazon, and feeds upon the algæ and other herbage which grows so plentifully in those regions. By some writers the animal is said to leave the water entirely, and to search for its food upon the land, but this assertion is now ascertained to be incorrect. It is, however, in the habit of crawling partly out of the water, and has a strange custom of elevating its head and shoulders above the surface in such a manner that it bears some resemblance to a human being.

BROWN RAT.—*Mus Decumanus.*

The Rodents, or gnawing animals, derive their name from the peculiar structure of their teeth, which are specially fitted for gnawing their way through hard substances.

The two front teeth of each jaw are edged like chisels, and are so formed that as fast as they are worn away in front, they grow from behind.

Few animals are so well known or so thoroughly detested as the common Brown Rat, or Norway Rat, as it is sometimes erroneously called.

Wherever they set their feet, the Brown Rats take up their abode; and being singularly prolific animals, soon establish themselves in perpetuity. They are marvellous exterminators of other "vermin," and permit none but themselves to be in possession of the domain which they have chosen. It is a well-known fact that they have driven away the black English Rat, and established themselves in its place with wonderful rapidity.

There is scarcely a greater plague to the farmer, butcher, sailor, provision merchant, or poultry keeper, than the Rat, whose mingled craft, daring, and perpetual hunger require the greatest watchfulness and the most elaborate precaution. The havoc which an army of Rats will make among the corn-ricks is almost incredible, while they carry on their depredation with so much secrecy that an unpractised eye would take the stacks to be sound and unharmed.

BLACK RAT.—*Mus Rattus.*

The Black Rat derives its name from the colour of its fur, which is of a greyish-black, instead of the reddish-brown hue which tinges the coat of the Brown Rat. The upper jaw projects considerably beyond the lower, and a number of long stiff hairs project through the ordinary fur. In size it is rather less than the above-mentioned animal, and the ears and tail are rather longer in proportion.

The Black Rat is found in all warm and temperate regions, and in England was in former days extremely numerous, although it has now been gradually driven away from its domains by the larger and more powerful intruder. It is not, however, so rare as is sometimes imagined, and may still be found by those who know where to look for it.

The skins of these brown-black Rats are considered to be of some value, and they are accordingly pursued by the rat-catchers for the purpose of sale to the furriers. Even the brown Rat is not without its value in commerce, as the prepared skin is said to furnish the most delicate leather for the manufacture of the thumbs of the best kid gloves; and the fur is used as a substitute for beaver in the composition of hats.

MOUSE—*Mus músculus.*

The common Mouse, of which a white and a pied variety are also figured in the engraving, is too well known to need any particular description.

Like the rat, it frequents both town and country, doing an infinity of damage in the former, but comparatively little harm in the latter. In the country it attaches itself mostly to farmyards, where it gains access to the ricks, and when once firmly established, is not so easily dislodged as its larger relative the rat. However, if the rick be kept under cover, the Mice cannot make any lengthened stay, for the cover keeps off the rain, on which they chiefly depend for drink, and they are then obliged to leave the stack in search of water. If the rick be placed on staddles, it will be then safe from these little pests.

Mice are odd little animals, and full of the quaintest gamesomeness, as may be seen by any one who will sit quite still and watch them as they run about a room which they specially affect. They are to the full as inquisitive as cats, and will examine any new piece of furniture with great curiosity.

WATER RATS OR WATER VOLE.—*Arvícola amphíbius.*

There are many animals which have been saddled with a bad reputation merely on account of an unfortunate resemblance to another animal of really evil character. Among these misused innocents the Water Vole is very conspicuous, as the poor creature has been commonly supposed to be guilty of various poaching exploits which were really achieved by the ordinary brown Rat.

It is quite true that Rats are often seen on the river-banks in the act of eating captured fish, but these culprits are only the brown Rats which have migrated from the farmyards for the summer months, and intend to return as soon as autumn sets in. The food of the true Water Rat, or Water Vole, as it is more correctly named, is chiefly of a vegetable nature, and consists almost entirely of various aquatic plants and roots. The common "mare's-tail," or equisetum, is a favourite article of diet with the Water Vole, and I have often seen it feeding on the bark of the common rush. It will sometimes leave the water-side and travel some little distance across the country in search of cultivated vegetables. One of these animals has been seen to cross a large field and enter a garden where some French beans were growing. The Vole crept up the bean-stalks, and after cutting off several of the pods with its sharp and scissor-like teeth, picked them up and retraced his steps to his home.

HARVEST MOUSE.—*Micromys minutus*

Smallest, and perhaps the prettiest, of the British mammalia, the elegant little Harvest Mouse next claims our attention. The total length of this tiny creature is not quite five inches, its tail being nearly two inches and a half in length. The colour of its fur is a delicate reddish-brown, while the under parts of the abdomen are white.

The description that is given of the Harvest Mouse and its wonderful nest, by the Rev. Gilbert White, is so well known that it need only be casually mentioned. I have fortunately had opportunities of verifying his observations by means of a nest which was found in a field in Wiltshire by some mowers.

It was built upon a scaffolding of four of the rank grass-stems that are generally found on the sides of ditches, and was situated at some ten or eleven inches from the ground. In form it was globular, rather larger than a cricket-ball, and was quite empty. The material of which it was composed was thin dry grass of nearly uniform substance, and its texture was remarkably loose, so that any object contained in it could be seen through the interstices as easily as if it had been placed in a lady's open-worked knitting basket.

BEAVER.—*Castor Fiber.*

The common Beaver has earned a world-wide reputation by the wonderful instinct which it displays, independently of its great value in producing costly fur and perfume.

This animal is found in the northern parts of Europe and Asia, but is found in the greatest profusion in North America.

The Beaver lives in societies, varying considerably in number, and united together in the formation of works which may be fairly considered as belonging to the profession of the engineer. They prefer to make their habitations by small clear rivers and creeks, or close to large springs, although they sometimes take up their abode on the banks of lakes.

Lest they should not have a sufficient depth of water in all weathers and at all seasons, the Beavers are in the habit of building veritable dams, for the purpose of raising the water to the required level. These dams are composed of tree-branches, mud, and stones, and in order effectually to resist the action of the water, are about ten or twelve feet in thickness at the bottom, although they are only two feet or so wide at the summit.

PORCUPINE.—*Hystrix cristata.*

The Porcupine has long been rendered famous among men by the extraordinary armoury of pointed spears which it bears upon its back.

This animal inhabits many parts of the world, being found in Africa, Southern Europe, and India. The spines, or quills, with which it is furnished, vary considerably in length, the longest quills being flexible, and not capable of doing much harm to an opponent. Beneath these is a plentiful supply of shorter spines, from five to ten inches in length, which are the really effective weapons of this imposing array. Their hold on the skin is very slight, so that when they have been struck into a foe, they remain fixed in the wound, and, unless immediately removed, work sad woe to the sufferer. For the quill is so constructed, that it gradually bores its way into the flesh, burrowing deeper at every movement, and sometimes even causing the death of the wounded creature.

The Porcupine is a nocturnal animal, seldom venturing out of its retreat as long as the sun is above the horizon, and is therefore not often seen even in the localities which it most prefers.

TUFTED-TAILED PORCUPINE.—*Atherúra Africána.*

The Tufted-tailed Porcupine is even a more singular animal than that which has just been described.

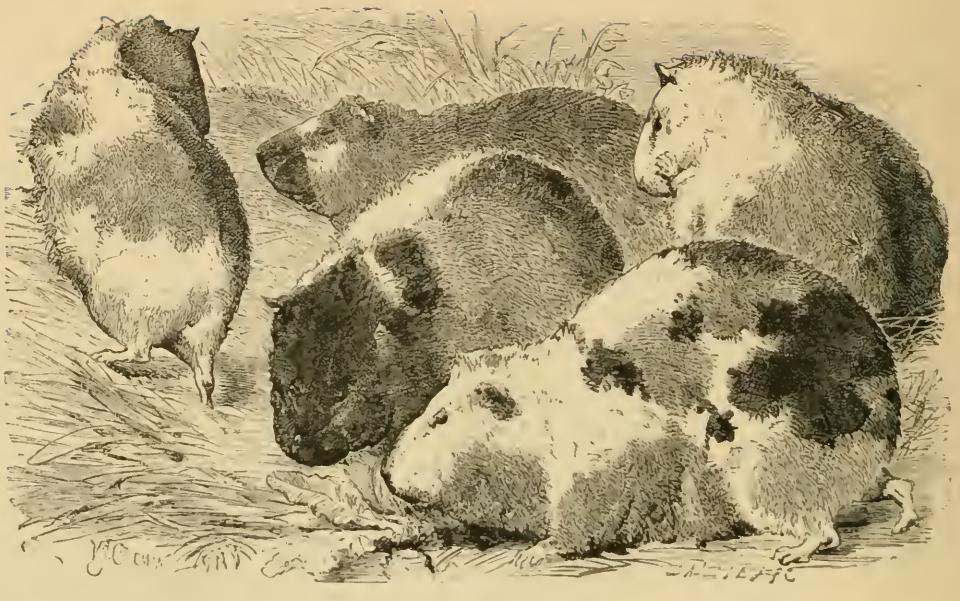
The quills which cover the body are very short in proportion to the size of the animal, and instead of preserving the rounded, bamboo-like aspect of the ordinary Porcupine-quills, are flattened like so many blades of grass. The tail is scaly throughout a considerable part of its length, but at the tip is garnished with a tuft of most extraordinary-looking objects, which can hardly be called hairs or quills, but, as Buffon remarks, look very like narrow, irregular strips of parchment. They are very sharply pointed, and are remarkable for a deep groove that runs along their entire length. Upon the head the quills are not more than one inch long, but on the middle of the body they reach four or even five inches. Among these quills there are a few long and very slender spines or bristles, which project beyond the others.

The Tufted-tailed Porcupine has been found at Fernando Po, and is an inhabitant of India and the Peninsula of Malacca.

BRAZILIAN PORCUPINE, OR COENDOO.—*Cercólabes prehénsilis.*

In Southern America, the Porcupines find a representative in the Coendoo, an animal which is not only remarkable for its array of quills, but also for the prehensile power of its long tail.

As might be presumed, from the prehensile tail and the peculiarly armed claws, the Coendoo is of arboreal habits, finding its food among the lofty branches of trees. The food of this animal consists of leaves, flowers, fruit, bark, and the soft woody substance of young and tender branches, which it slices easily with its chisel-edged incisor teeth.



GUINEA PIG.—*Cávia Apérea.*

The Cavies are well represented by the common Guinea Pig.

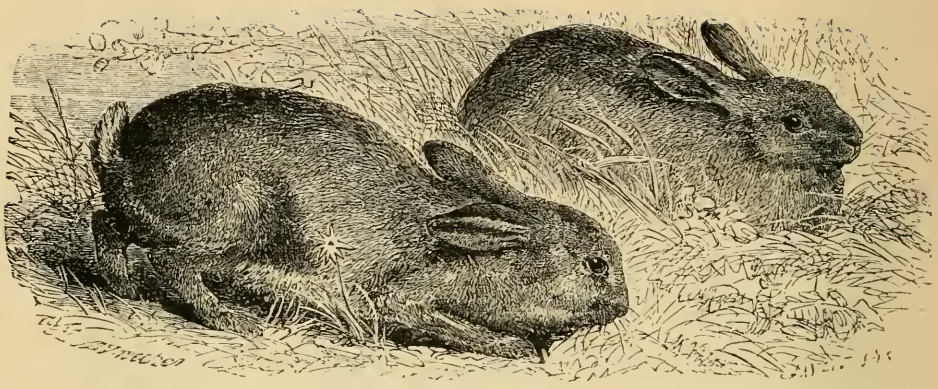
Few animals have received less appropriate names than the Guinea Pig; for it is not a pig, and does not come from Guinea, but from Southern America. It is very easily tamed; for its disposition is so dull that it accommodates itself to change of locality without betraying any emotion, and seems hardly to be susceptible even of fear. Being a very pretty little creature, it is in some favour as a domestic pet; and as it is remarkably prolific, it very rapidly increases in numbers if it is well defended from cold and preserved from damp, for without warmth and a dry habitation it soon dies. The food of the Guinea Pig is exclusively of a vegetable nature, and while feeding it generally sits on its hinder feet, and carries the food to its mouth with its fore-paws.

An idea of the extreme fecundity of this animal may be formed by the fact that it begins to breed at ten months of age, that each brood consists on an average of six or eight, and that in less than three weeks after the birth of the young family they are driven to shift for themselves, and the mother is then ready for another brood

HARE.—*Lepus timidus.*

The common Hare is known from the rabbit by the redder hue of its fur, the great proportionate length of its black-tipped ears, which are nearly an inch longer than the head; by its very long hind legs, and its large and prominent eyes.

The very long and powerful hind legs of the Hare enable it to make prodigious bounds, and to cover a considerable space of ground at every leap. The hinder limbs are, indeed, of such great proportionate length that the animal does not walk, but proceeds by a series of hops or leaps. The Hare is so constituted that it never becomes fat, however rich and fertile may be the pasture in which it feeds, and is therefore enabled to run for a very great distance without being fatigued, as would be the case if its muscles were loaded with fat. It can also leap to a considerable height, and has been known to jump over a perpendicular wall of eight feet in height in order to escape from its pursuers.



RABBIT.—*Lepus cuniculus.*

Resembling the hare in general appearance and in many of its habits, the Rabbit is readily distinguished from that animal by its smaller dimensions, its different colour, its shorter and uniformly brown ears, and its shorter limbs.

The Rabbit is one of the most familiar of British quadrupeds, having taken firm possession of the soil into which it has been imported, and multiplied to so great an extent that its numbers can hardly be kept within proper bounds without annual and wholesale massacres. As it is more tameable than the hare, it has long been ranked among the chief of domestic pets, and has been so modified by careful management that it has developed itself into many permanent varieties, which would be considered as different species by one who saw them for the first time. The little brown short-furred wild Rabbit of the warren bears hardly less resemblance to the long-haired, silken-furred Angola variety, than the Angola to the pure lop-eared variety with its enormously lengthened ears and its heavy dewlap.

Rabbits are terribly destructive animals, as is too well known to all residents near a warren, and are sad depredators in field, garden, and plantation, destroying in very wantonness hundreds of plants which they do not care to eat. They do very great damage to young trees, delighting in stripping them of the tender bark as far as they can reach while standing on their hind feet.

DORMOUSE.—*Muscardínus avellanárius.*

The common Dormouse is abundantly found in many districts of England, as well as on the Continent, and is in great favour as a domestic pet.

The total length of this pretty little animal is rather more than five inches, the tail being two inches and a half long. The colour of its fur is a light reddish-brown upon the back, yellowish-white upon the abdomen, and white on the throat.

The Dormouse is a nocturnal animal, passing the whole of the day in its warm and neatly constructed nest, which is generally built in the most retired spot of some thick bush or small tree. It is a very active little creature, leaping from branch to branch, and traversing the intricate mazes of the brushwood with such ready agility that it can scarcely be taken by a human hand. Generally, when a Dormouse is captured, it is secured while sleeping in its nest, for during its slumbers it is so deeply buried in repose that it can be handled without offering resistance or attempting escape. The food of the Dormouse consists of various fruits and seeds, such as acorns, nuts, haws, and corn.

As soon as the weather becomes cold, the Dormouse retires into its nest, and there slumbers throughout the entire winter.

SQUIRREL.—*Sciúrus Europæus*

Every one is familiar with the lively little English Squirrel, which makes the woods joyous with its active gambols, and is too often repaid for its gaiety by being captured and compelled to make sport for its owner within the narrow precincts of a wire cage.

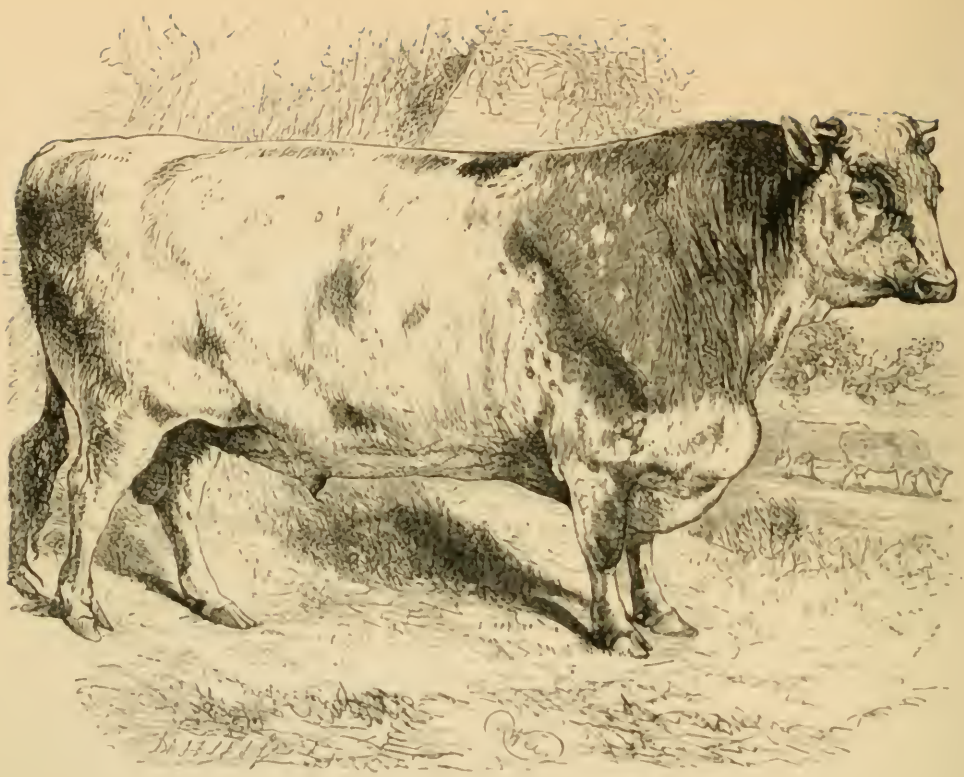
This little animal is plentiful in many parts of England, and, indeed, is generally found wherever there is a tolerably large copse or a wood of moderate dimensions.

The nest of the Squirrel is an admirable specimen of natural architecture, and is almost invariably placed in the fork of some lofty branch, where it is concealed from the view of any one passing under the tree, and is out of the reach of any ordinary foe, even if its situation is discovered. Sometimes it is built in the hollow of a decayed bough, but is always admirably concealed from sight. In form it is nearly spherical, and is made of leaves, moss, grass, and other substances, woven together in so artistic a manner that it is impermeable to rain, and cannot be dislodged from its resting-place by the most violent wind.

The food of the Squirrel is usually of a vegetable nature, and consists of nuts, acorns, wheat, and other fruits and seeds.

LONG-EARED SQUIRREL.—*Sciúrus Macrótis.*

One of the most striking forms among the members of the genus Sciúrus is seen in the Long-eared Squirrel. This remarkable species is found in Borneo and there is a tolerably good specimen in the collection of the British Museum. Although it is called the Long-eared Squirrel, its title is not due to the length of the ears, which are in reality hardly longer than those of an ordinary Squirrel, but to the very long hair-tufts with which those organs are decorated. The fringe of hair which adorns the ears is about two inches in length, of a glossy blackish-brown colour, and stiff in texture. The colour of the back and exterior of the limbs is a rich chestnut-brown, which fades into paler fawn along the flanks, and is marked by a single dark longitudinal stripe, extending from the fore to the hinder limbs. This dark band is narrow at each end, but of some width in the centre. The inside of the limbs is a pale chestnut, and the paws are jetty black. The tail is remarkably bushy, reminding the spectator of a fox's "brush," and is generally of the same colour as the back, but grisled with yellowish-white hairs, which are thickly sown among those of the darker hue.



SHORT-HORN BULL.—*Bos Taurus.*

The Domestic Ox of Europe has been so modified in form, habits, and dimensions, by its long intercourse with mankind, that it has developed into as many permanent varieties as the dog, the pigeon, or the rabbit, and would in many cases be thought to belong to different species. In almost every part of the world are found examples of the Ox, variously modified in order to suit the peculiar circumstances amid which they are placed, but in all instances they are susceptible of domestication, and are employed in the service of mankind.

There are few animals which are more thoroughly useful to man than the Ox, or whose loss we should feel more deeply in the privation of so many comforts. Putting aside the two obvious benefits of its flesh and its milk—both of which are so needful for our comfort that we almost forget to think about them at all—we derive very great benefit from its powers while living, and from many portions of its body when dead.

ZEBU.—*Bos Indicus.*

The domestic cattle of India is commonly known by the name of Zebu, and is conspicuous for the curious fatty hump which projects from the withers. These animals are further remarkable for the heavy dewlap which falls in thick folds from the throat, and which gives to the fore part of the animal a very characteristic aspect. The limbs are slender, and the back, after rising towards the haunches, falls suddenly at the tail.

The Zebu is a quiet and intelligent animal, and is capable of being trained in various modes for the service of mankind. It is a good draught animal, and is harnessed either to carriages or ploughs, which it can draw with great steadiness, though with but little speed. Sometimes it is used for riding, and is possessed of considerable endurance, being capable of carrying a rider for fifteen hours in a day, at an average rate of five or six miles per hour.

As a beast of burden, the Zebu is in great request. It can carry a heavy load for a considerable distance, though at no great speed. The Nagore breed is celebrated for its capabilities for riding purposes, and is remarkable for its easy and excellent action.

BRAHMIN BULL.

There are various breeds of Zebu, some being about the size of our ordinary cattle, and others varying in dimensions from a large Ox to a small Newfoundland dog. One of the most familiar of these varieties is the well-known Brahmin Bull, so called because it is considered to be sacred to Bramah.

The more religious among the Hindoos, scrupulously observant of the letter of a law which was intended to be universal in its application, but to which they give only a partial interpretation, indulge this animal in the most absurd manner. They place the sacred mark of Siva on its body, and permit it to wander about at its own sweet will, pampered by every luxury, and never opposed in any wish or caprice which it may form.

CAPE BUFFALO.—*Búbalus Caffer.*

The Cape Buffalo is a most terrible animal in aspect and in character. The heavy bases of the horns, that nearly unite over the forehead, and under which the little fierce eyes twinkle with sullen rays, give to the creature's countenance an appearance of morose, lowering ill-temper, which is in perfect accordance with its real character.

Owing to the enormous heavy mass which is situated on the forehead, the Cape Buffalo does not see very well in a straight line, so that a man may sometimes cross the track of a Buffalo within a hundred yards, and not be seen by the animal, provided that he walks quietly, and does not attract attention by the sound of his footsteps. This animal is always a dangerous neighbour, but when it leads a solitary life among the thickets and marshy places, it is a worse antagonist to a casual passenger than even the lion himself. In such a case, it has an unpleasant habit of remaining quietly in its lair until the unsuspecting traveller passes closely to its place of concealment, and then leaping suddenly upon him, dripping with mud, and filled with rage.

YAK.—*Poéphagus grunniens.*

The Yak, or Grunting Ox, derives its name from its very peculiar voice, which sounds much like the grunt of a pig. It is a native of the mountains of Thibet, and according to Hodson, it inhabits all the loftiest plateaus of High Asia, between the Altai and the Himalayas.

It is capable of domestication, and is liable to extensive permanent varieties, which have probably been occasioned by the climate in which it lives and the work to which it has been put.

The heavy fringes of hair that decorate the sides of the Yak do not make their appearance until the animal has attained three months of age, the calves being covered with rough curling hair, not unlike that of a black Newfoundland dog. The beautiful white bushy tail of the Yak is in great request for various ornamental purposes, and forms quite an important article of commerce.

BISON.—*Bison Americánus.*

The Bison is only found in Northern America. It gathers together in enormous herds, consisting of many thousands in number, and in spite of the continual persecution to which it is subjected by man and beast, its multitudes are even now hardly diminished. The Bison is one of the most valuable of animals to the white hunter as well as to the Red Indian, as its body supplies them with almost every necessary of life.

The flesh of the fat cow Bison is in great repute, being juicy, tender, and well-savoured. The fat is peculiarly excellent, and is said to bear some resemblance to the celebrated green fat of the turtle. The most delicate portion of the Bison is the flesh that composes the "hump," which gives to the animal's back so strange an aspect; and the hunters are so fond of this delicacy that they will often slay a magnificent Bison merely for the sake of the hump, the tongue, and the marrow-bones, leaving the remainder of the body to the wolves and birds.

MUSK OX.—*Ovibos moschátus.*

The Musk Ox inhabits the extreme north of America. It is a fleet and active animal, and traverses with such ease the rocky and precipitous ground on which it loves to dwell, that it cannot be overtaken by any pursuer less swift than an arrow or a bullet. It is rather an irritable animal, and becomes a dangerous foe to the hunters, by its habit of charging upon them while they are perplexed amid the cliffs and crevices of its rocky home, thus often escaping unharmed by the aid of its quick eye and agile limbs.

The flesh of this animal is very strongly perfumed with a musky odour, very variable in its amount and strength. Excepting, however, a few weeks in the year, it is perfectly fit for food, and is fat and well flavoured.

GAZELLE.—*Gazella Dorcas.*

The well-known Gazelle is found in great numbers in Northern Africa, where it lives in herds of considerable size, and is largely hunted by man and beast.

Trusting to its swift limbs for its safety, the Gazelle will seldom, if ever, attempt to resist a foe, unless it be actually driven to bay in some spot from whence it cannot escape; but prefers to flee across the sandy plains, in which it loves to dwell, with the marvellous speed for which it has long been proverbial. The lion and leopard can always find a meal whenever they can steal upon a herd of Gazelles without being discovered by the sentries which watch the neighbourhood with jealous precaution, for the Gazelles are too weak to withstand the attack of such terrible assailants, and do not even attempt resistance.

When opposed by less formidable enemies, the Gazelles can bid defiance to their assailants by gathering themselves into a compact circular mass, the females and the young being placed in the centre, and the outer circle being composed of the males, all presenting their horns towards the intruder.

SPRING-BOK.—*Antidorcas Euchore.*

The Spring-Bok derives its very appropriate title from the extraordinary leaps which it is in the constant habit of making whenever it is alarmed.

As soon as it is frightened at any real or fancied danger, or whenever it desires to accelerate its pace suddenly, it leaps high into the air with a curiously easy movement, rising to a height of seven or eight feet without any difficulty, and being capable on occasions of reaching to a height of twelve or thirteen feet. When leaping, the back is greatly curved.

Inhabiting the vast plains of Southern Africa, the Spring-bok is accustomed to make pilgrimages from one spot to another, vast herds being led by their chiefs, and ravaging the country over which they pass. Thousands upon thousands unite in these strange pilgrimages, or "trek-bokken," as they are called by the Boers, and some faint idea of the moving multitudes that traverse the country may be obtained from the fact that Captain Cumming saw a single herd of these animals, which was half a mile in breadth, and occupied more than two hours in passing the spot where he was standing.

SABLE ANTELOPE.—*Egoceras niger.*

The Sable Antelope is found in Southern Africa, but is never seen near the colony, as it is a very shy and crafty animal, and being possessed of great speed, is sure to keep far aloof from mankind. They live in herds of ten or twelve, the leader being an old buck and others his wives. By the natives, the Sable Antelope is called the Potaquaine.

GEMS-BOK,—*Oryx Gazella.*

The Gems-Bok, or Kookaam, is a large and powerful member of the Antelope tribe, equalling the domestic ass in size, and measuring about three feet ten inches at the shoulder. The peculiar manner in which the hide is decorated with boldly contrasted tints, gives it a very peculiar aspect.

The long and sharply-pointed horns with which its head is armed, are terrible weapons of offence, and can be wielded with marvellous skill. Striking right and left with these natural bayonets, the adult Gems-bok is a match for most of the smaller carnivora, and has even been known to wage a successful duel with the lordly lion, and fairly to beat off its antagonist. Even when the lion has overcome the Gems-bok, the battle may sometimes be equally claimed by both sides, for in one instance, the dead bodies of a lion and a Gems-bok were found lying on the plain, the horns of the Antelope being driven so firmly into the lion's body, that they could not be extracted by the efforts of a single man. The lion had evidently sprung upon the Gems-bok, which had received its foe upon the points of its horns, and had sacrificed its own life in destroying that of its adversary

CHAMOIS.—*Rupicapra Tragus.*

Goat-like in aspect, and many of its habits, the Chamois is often supposed to belong to the goats rather than to the Antelopes.

It is, however, a true Antelope, and may be readily distinguished from any of its relations by the peculiar form of its horns, which rise straight from the top of the head for some inches, and then suddenly curve backwards, so as to form a pair of sharp hooks.

It is an inhabitant of the lofty mountain ranges of Switzerland and some other parts of Europe, and is remarkable for the manner in which it can ascend and descend the most terrible precipices, seeming quite at its ease where any other creature would be dashed to pieces. The celebrated Chamois Hunters are accustomed to follow this animal over the mountains, and undergo the greatest hardships in pursuit of these active game.

The food of the Chamois consists of the various herbs which grow upon the mountains, and in the winter season it finds its nourishment on the buds of sundry trees, mostly of an aromatic nature, such as the fir, pine, and juniper.

BRINDLED GNOO.—*Connochetes Gorgon.*

Of all the Antelopes, the Gnoo presents the most extraordinary conformation. At the first sight of this curious animal, the spectator seems to doubt whether it is a horse, a bull, or an Antelope, as it appears to partake nearly equally of the nature of these three animals.

The Gnoos, of which there are several species, may be easily recognised by their fierce looking head, their peculiarly shaped horns, which are bent downwards and then upwards again with a sharpe curve, by their broad nose, and long hair-clad tail. They live together in considerable herds, often mixing with zebras, ostriches, and giraffes, in one huge army of living beings.

The Gnoos inhabit the vast plains of Southern Africa.

HARTEBEEST.—*Alcephalus Caäma*

The Hartebeest may be easily known by the peculiar shape of the horns, which are lyre-shaped at their commencement, thick and heavily knotted at the base, and then curve off suddenly nearly at a right angle.

Not being very swift or agile, its movements are more clumsy than is generally the case with Antelopes. It is, however, capable of running for considerable distances, and if brought to bay, becomes a redoubtable foe, dropping on its knees, and charging forward with lightning rapidity. The Hartebeest is spread over a large range of country, being found in the whole of the district between the Cape and the tropic of Capricorn.

KOODOO.—*Strepsiceros Kudu.*

By far the most striking and imposing of all South African Antelopes, the Koodoo, now claims our attention.

This truly magnificent creature is about four feet in height at the shoulder, and its body is rather heavily made, so that it is really a large animal. The curiously twisted horns are nearly three feet in length, and are furnished with a strong ridge or keel, which extends throughout their entire length.

As it is in the habit of frequenting brushwood, the heavy spiral horns would appear to be great hindrances to their owner's progress; such is not, however, the case, for when the Koodoo runs, it lays its horns upon its back, and is thus enabled to thread the tangled bush without difficulty.

ELAND.—*Oreas Canna.*

The Eland is the largest of the South African Antelopes, and is equal in size to a very large ox.

The flesh of the Eland is peculiarly excellent; and as it possesses the valuable quality of being tender immediately after the animal is killed, it is highly appreciated in the interior of South Africa, where usually all the food is as tough as shoe-leather, and nearly as dry. In some strange manner, the Eland contrives to live for months together without drinking, and even when the herbage is so dry that it crumbles into powder in the hand, the Eland preserves its good condition, and is, moreover, found to contain water in its stomach if opened.

IBEX.—*Capra Ibex.*

We now arrive at the Goats, the first example of which is the celebrated Ibex. This animal, an inhabitant of the Alps, is remarkable for the exceeding development of the horns, which are sometimes more than three feet in length, and of such extraordinary dimensions that they appear to a casual observer to be peculiarly unsuitable for an animal which traverses the craggy regions of Alpine precipices.

It lives in little bands of five or ten in number, each troop being under the command of an old male, and preserving admirable order among themselves. Their sentinel is ever on the watch, and at the slightest suspicious sound, scent, or object, a warning whistle is blown, and the whole troop make instantly for the highest attainable point.

GOAT.—*Hircus Ægagrus.*

The common Goat of Europe is too well known to need much description.

In its wild state, the Goat is a fleet and agile animal, delighting in rocks and precipitous localities, and treading their giddy heights with a foot as sure and an eye as steady as that of the chamois or ibex. Even in domesticated life, this love of clambering is never eradicated, and wherever may be an accessible roof, or rock, or even a hill, there the Goat may be generally found.

At the Cape of Good Hope, large flocks of these animals are kept, and are extremely sagacious, needing no goat-herd to watch them, and are altogether more wise than sheep. In the morning they sally out upon their foraging expeditions, and in the evening they voluntarily return. It is said that Goats are the only animals that will boldly face fire, and that their chief use in a stable is to lead the horses from the stalls in case of the stables being burned.

CASHMIR GOAT.

There are many kinds of domestic Goat, and among the most valuable of these varieties is the celebrated Cashmir Goat, whose soft silky hair furnishes material for the soft and costly fabrics which are so highly valued in all civilized lands.

This animal is a native of Thibet and the neighbouring locality, but the Cashmir shawls are not manufactured in the same land which supplies the material. The fur of the Cashmir Goat is of two sorts; a soft, woolly under coat of greyish hair, and a covering of long silken hairs that seem to defend the interior coat from the effects of winter. The woolly under coat is the substance from which the Cashmir shawls are woven, and in order to make a single shawl, a yard-and-a-half square, at least ten Goats are robbed of their natural covering.

Attempts have been made to domesticate this useful animal in England, but hitherto without success.

SHEEP.—*Ovis Aries.*

The varieties of the Sheep are even more numerous than those of the Goat, and as the habits of these creatures are so well known, we will confine ourselves to a few of the best marked and most important herds, some of which are valuable for their wool and others for their flesh.

The Southdown affords a good example of the short-woolled breed of domestic Sheep, and is valuable not only for the wool, but for the delicacy of the flesh. This breed derives its name from the extensive Southern Downs; a range of grass-clad chalk hills which pass through Sussex, Surrey, and Kent. These downs are covered with a short, sweet herbage, which is of great service in giving to the flesh of the animal its peculiarly delicate flavour. Multitudes of tiny snails are found upon almost every foot of the down-turf, and are thought by many farmers to be very efficacious in fattening and nourishing the animal.

HIGHLAND SHEEP.

Pasturing together in enormous herds, and traversing vast ranges of bleak, hilly country, the light and active Highland Sheep is a very intelligent and independent creature, quite distinct in character from the large, woolly, unintellectual animal that lives only in the fold, and is regularly supplied with its food by the careful hand of its guardian. It is very sensitive to atmospheric influences, and is so ready in obeying the directions of its own instinct, that a good shepherd when he first rises in the morning can generally tell where to find his Sheep, merely by noticing the temperature, the direction of the wind, and the amount of moisture in the air and on the ground. As the Highland Sheep is able to wander to considerable distances from its proper home, the shepherd is aided in his laborious task by several of those wonderful dogs whose virtues and powers have so often been recorded.

BRETON SHEEP.

The Welch Sheep are remarkable for their small dimensions, but there is a breed which is even smaller than the Welch. The variety in question is that which is known by the name of the Breton Sheep, and is of such wonderfully minute proportions that it irresistibly reminds the observer of the dwarfed oak-trees which are so prevalent among the Chinese.

A considerable number of these little animals have been lately imported into England, not for the purpose of improving the British herds of Sheep, but merely as curious examples of the singular diversity of size and shape which can be assumed by a single species. If a Breton Sheep be placed by the side of a fair example of the Leicester breed, the difference in size is much greater than that which is exhibited by the huge Flanders dray-horse and the diminutive Shetland pony.

CRETAN OR WALLACHIAN SHEEP.

One of the most important of this group, is the Cretan, or Wallachian Sheep, remarkable for its magnificent horns.

This splendid animal is a native of Western Asia and the adjacent portions of Europe, and is very common in Crete, Wallachia, and Hungary. The horns of the Wallachian Sheep are strikingly like those of the Koodoo, or the Addax, their dimensions being proportionately large, and their form very similar. The first spiral turn is always the largest, and the horns are not precisely the same in every specimen.

The fleece of this animal is composed of a soft woolly undercoat, covered with and protected by long drooping hairs. The wool is extremely fine in quality, and is employed in the manufacture of warm cloaks, which are largely used by the peasantry, and which are so thick and warm that they defend the wearer against the bitterest cold. Even in the depth of winter the shepherd can safely lie on the ground wrapped in his sheep-skin mantle. For this purpose, the skin is dressed without removing the wool.

GIRAFFE.—*Giraffa Camelopardalis.*

The Giraffe is the tallest of all the animals that dwell on the face of the globe. It inhabits various parts of Africa, and as it is extremely timid, and very

much afraid of mankind, is not seen except in those parts of the country which are the most remote from human beings.

The height of a full-grown male Giraffe is from eighteen to twenty feet, the female being somewhat less in her dimensions. The greater part of this enormous stature is obtained by the extraordinarily long neck, which is nevertheless possessed of only seven vertebræ, as in ordinary animals. Large as is the animal, it can contract the tip of its tongue into so small a compass that it can pass into the pipe of an ordinary pocket-key, while its prehensile powers enable its owner to pluck any selected leaf with perfect ease. In captivity the Giraffe is rather apt to make too free a use of its tongue, such as twitching the artificial flowers and foliage from ladies' bonnets, or any similar freak.

For grazing upon level ground the Giraffe is peculiarly unfitted, and never attempts that feat excepting when urged by hunger or some very pressing cause. It is, however, perfectly capable of bringing its mouth to the ground, although with considerable effort and much straddling of the fore-legs. By placing a lump of sugar on the ground, the Giraffe may be induced to lower its head to the earth, and to exhibit some of that curious mixture of grace and awkwardness which characterises this singular animal.

In its native country its usual food consists of the leaves of a kind of acacia, named the Kameel-dorn, or Camel-thorn (*Acacia giraffæ*). The animal is exceedingly fastidious in its appetite, and carefully rejects every thorn, scrupulously plucking only the freshest and greenest leaves. When supplied with cut grass, the Giraffe takes each blade daintily between its lips, and nibbles gradually from the top to the stem, after the manner in which we eat asparagus. As soon as it has eaten the tender and green portion of the grass, it rejects the remainder as unfit for camelopardine consumption. Hay, carrots, onions, and different vegetables form its principal diet while it is kept in a state of captivity.

Although an inoffensive and most gentle creature, it is not destitute of aggressive capabilities, and can defend itself against ordinary foes, such as the predaceous carnivora which inhabit the same land. In defending itself it does not bring its head within reach of its enemy, but delivers a shower of kicks with such lightness and celerity, that it has been known even to daunt the lion from the attack. When, however, the lion can steal unobserved upon the Giraffe, and especially when it unites with others of its own race in the pursuit of the huge prey, it brings down the Giraffe by dint of sheer bodily strength and sharpness of tooth and claw.

MOOSE, OR ELK.—*Alces Malchis.*

The first group of Deer is that which includes the Deer of the snowy regions, and comprehends two genera, the Elk and the Reindeer.

The Moose or Elk is the largest of all the deer tribe, attaining the extraordinary height of seven feet at the shoulders, thus equalling many an ordinary elephant in dimensions. The horns of this animal are very large, and widely palmated at their extremities, their united weight being so great as to excite a feeling of wonder at the ability of the animal to carry so heavy a burden. It does not reach its full development until its fourteenth year. The muzzle is very large and is much lengthened in front, so as to impart a most unique expression to the Elk's countenance. The colour of the animal is a dark brown, the legs being washed with a yellow hue. It is a native of Northern Europe and America, the Moose of the latter continent and the Elk of the former being one and the same species.

CARIBOU.—*Tarandus Rángifer.*

The Caribou lives in herds, which vary from ten to three hundred in number. As it is so valuable an animal, it is subject to great persecution at the hands of white and red hunters, who have very ingenious modes of trapping or stalking this wary and swift deer.

WAPITI.—*Cervus Canadensis.*

We now come to the Deer which inhabit the warm or temperate regions of the world, and which include the greater portion of the family. The first on the list is the Wapiti, or Carolina Stag.

This magnificent animal is one of the largest of the Deer tribe, the adult male measuring nearly five feet in height at the shoulders, and about seven feet nine inches from the nose to the root of the tail. It is a native of North America, where it is popularly known under the name of the Elk.

The Stag, or Red Deer, is spread over many parts of Europe and Asia, and is indigenous to the British Islands, where it still lingers, though in vastly reduced numbers.

In the olden days of chivalry and Robin Hood, the Red Deer were plentiful in every forest; and especially in that which was made by William the Second, at the expense of much sorrow and suffering. Even in the New Forest itself the Red Deer is seldom seen, and those few survivors that still serve as relics of a bygone age, are scarcely to be reckoned as living in a wild state, and approach nearly to the semi-domesticated condition of the Fallow Deer. Many of these splendid animals are preserved in parks or paddocks, but they no more roam the wide forests in unquestioned freedom. In Scotland, however, the Red Deer are still to be found, as can be testified by many a keen hunter of the present day, who has had his strength, craft, and coolness thoroughly tested before he could lay low in the dust the magnificent animal, whose head with its forest of horns now graces his residence.

Formerly, the Stag was placed under the protection of the severest penalties, its slaughter being visited with capital punishment on the offender if he could be known and arrested. Indeed, a man who murdered his fellow might hope to escape retribution except by the avenging hand of some relation of the slain man, but if he were unfortunate or daring enough to dip his hands in the blood of a stag, he could hope for no mercy if he were detected in the offence.

The great speed of the Stag is proverbial, and needs no mention. It is an admirable swimmer, having been known to swim for a distance of six or seven miles, and in one instance a Stag landed in the night upon a beach which he could not have reached without having swam for a distance of ten miles. The gallant beast was discovered by some dogs as he landed, and being chased by them immediately after his fatiguing aquatic exploit, was overcome by exhaustion, and found dead on the following morning.

The colour of the Stag varies slightly according to the time of year. In the summer the coat is a warm, reddish-brown, but in winter the ruddy hue becomes grey. The hind quarters are paler than the rest of the fur. The young Red Deer are born about April, and are remarkable for the variegated appearance of their fur, which is mottled with white upon the back and sides. As the little creatures increase in dimensions, the white marking gradually fades, and the fur assumes the uniform reddish-brown of the adult animal.

STAG OR RED DEER.—*Cervus Elaphus.*

AXIS DEER.—*Axis Maculata.*

The Axis or Spotted Hog-Deer inhabits India and Ceylon. The colour of this pretty animal is rather variable, but is generally a rich golden-brown, with a dark brown stripe along the back, accompanied by two series of white spots. The sides are covered with white spots, which at first sight appear to be scattered irregularly, but are seen on a careful inspection to be arranged in curved lines.

It does not appear to possess so much restless activity as is seen in many other deer, and owing to its nocturnal habits, is but seldom seen by day. It frequents the thick grass jungles, preferring the low-lying lands, where a stream is within easy reach, and passing the greater part of the day asleep, in the deep shade of the heavy foliage.

ROEBUCK.— *Capréolus capræa.*

The common Roebuck is smaller than the fallow Deer, being only two feet and three or four inches in height at the shoulder, but although so small, can be really a formidable animal, on account of its rapid movements and great comparative strength. Speaking of this animal, Mr. St. John makes the following remarks. After stating that when captured young it can readily be tamed, he proceeds to say :—

"A tame buck becomes a dangerous pet, for after attaining to his full strength, he is very apt to make use of it in attacking people whose appearance he does not like. They particularly single out women and children as their victims, and inflict severe and dangerous wounds with their sharp-pointed horns."

MUSK DEER.—*Moschus moschíferus.*

The Musk Deer are remarkable for the perfume which they afford and for the very long teeth which are found in the old males.

The most celebrated of these little Deer, is the common Musk Deer, which is a native of the northern parts of India, and is found spread throughout a very large range of country, always preferring the cold and elevated mountainous regions. The height of the adult Musk Deer is about two feet three inches at the shoulders; the colour is light brown, marked with a shade of greyish-yellow. Inhabiting the rocky and mountainous locations of its native home, it is remarkably active and surefooted, rivalling even the chamois or the goat in the agility with which it can ascend or descend the most fearful precipices. The great lengths of the false hoofs adds much to the security of the Musk Deer's footing upon the crags.

On account of the value of the musk, the animal which furnishes the precious substance is subjected to great persecution on the part of the hunters, who annually destroy great numbers of these active little animals.

CAMEL.—*Camélus Arábicus.*

From the earliest times that are recorded in history, the Camel is mentioned as one of the animals which are totally subject to the sway of man, and which in eastern countries contribute so much to the wealth and influence of their owners.

There are two species of Camel acknowledged by zoologists, namely, the common Camel of Arabia, which has but one hump, and the Mecheri, or Bactrian Camel, which possesses two of these curious appendages. Of these two animals, the former is by far the more valuable, as it is superior to its two-humped relative in almost every respect. Admirably fitted, as are all animals, for the task which they are intended to perform, the Camel presents such wonderful adaptations of form to duty, that the most superficial observer cannot but be struck with the exquisite manner in which the creature has been endowed with the various qualities of mind and body which are needful under the peculiar circumstances amid which it dwells.

As the animal is intended to traverse the parched sand plains, and to pass

several consecutive days without the possibility of obtaining liquid nourishment, there is an internal structure which permits the animal to store up a considerable amount of water for future use. For this purpose, certain honeycomb shaped cells in the stomach are largely developed, and are enabled to receive and to retain the water which is received into the stomach after the natural thirst of the animal has been supplied. After a Camel has been accustomed to journeying across the hot and arid sand wastes, it learns wisdom by experience, and contrives to lay by a much greater supply of water than would be accumulated by a young and untried animal. It is supposed that the Camel is, in some way, able to dilate the honeycomb cells, and to force them to receive a large quantity of the priceless liquid.

A large and experienced Camel will receive five or six quarts of water into its stomach, and is enabled to exist for as many days without needing to drink. Aided by this internal supply of water, the Camel can satiate its hunger by browsing on the hard and withered thorns that are found scattered thinly through the deserts, and suffers no injury to its palate from their iron-like spears, that would direfully wound the mouth of any less sensitive creature. The Camel has even been known to eat pieces of dry wood, and to derive apparent satisfaction from its strange meal.

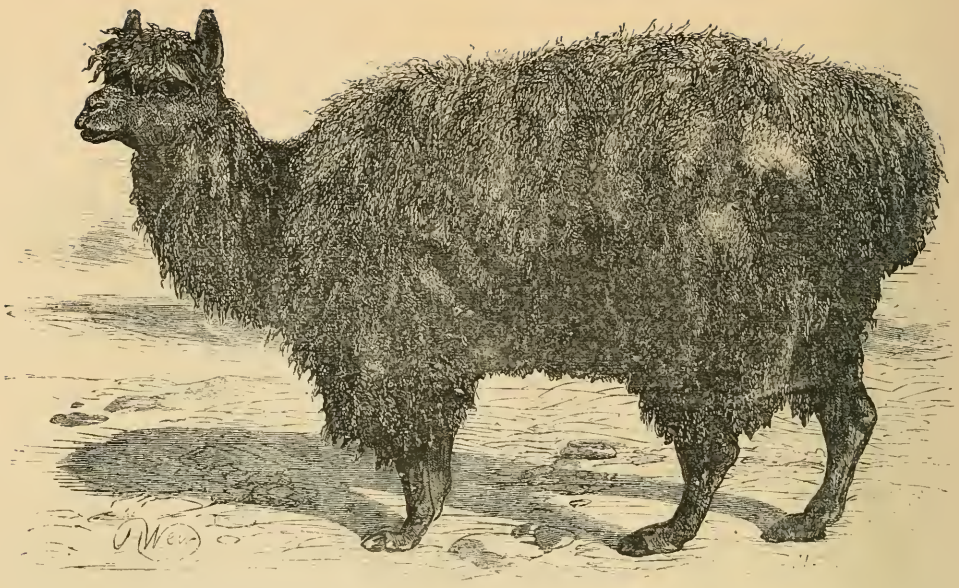
The feet of the Camel are well adapted for walking upon the loose, dry sand, than which substance is no more uncertain footing. The toes are very broad, and are furnished with soft, wide cushions, that present a considerable surface to the loose soil, and enable the animal to retain a firm hold upon the shifting sands. As the Camel is constantly forced to kneel in order to be loaded or relieved of its burden, it is furnished upon the knees and breast with thick callous pads, which support its weight without injuring the skin. Thus fitted by nature for its strange life, the Camel faces the desert sands with boldness, and traverses the arid regions with an ease and quiet celerity that has gained for the creature the title of the Ship of the Desert.

The "hump" of the Camel is a very curious part of its structure, and is of great importance in the eyes of the Arabs, who judge of the condition of their beasts by the size, shape, and firmness of the hump. They say, and truly, that the Camel feeds upon his hump, for in proportion as the animal traverses the sandy wastes of its desert lands, and suffers from privation and fatigue, the hump diminishes. At the end of a long and painful journey, the hump will often nearly vanish, and it cannot be restored to its pristine form until the animal has undergone a long course of good feeding. When an Arab is about to set forth on a desert journey, he pays great attention to the humps of his Camels, and watches them with jealous care.

BACTRIAN CAMEL.—*Camélus Bactriánus.*

The Bactrian Camel is readily to be distinguished from the ordinary Camel by the double hump which it bears on its back, and which is precisely analogous in its structure and office to that of the Arabian Camel.

This species is spread through central Asia, Thibet, and China, and is domesticated through a large portion of the world. It is not so enduring an animal as the Arabian species, requiring a fresh supply of liquid every three days; while the Arabian Camel can exist without water for five or even six days. It is employed by the Persians in a rather curious military capacity; its saddle being furnished with one or two swivel guns, which are managed by the rider. The corps is called the Camel Artillery, and is of considerable value in the peculiar mode of fighting which is prevalent in the East.

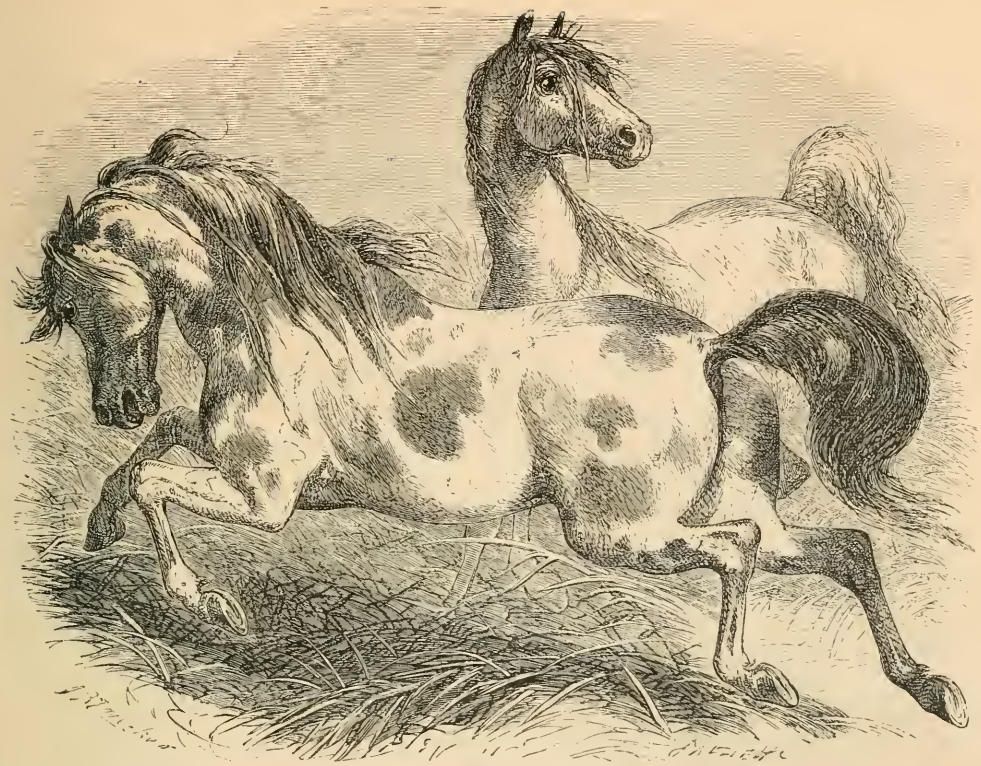


ALPACA LLAMA.—*Llama Pacos.*

The Llamas inhabit the new world, where they evidently represent the camels of the old world. These animals are comparatively small in their dimensions, and possess no hump, so that they may easily be distinguished from the camels. Their hair is very woolly, and their countenance has a very sheep-like expression, so that a full-haired Llama instantly reminds the spectator of a long-legged, long-necked sheep. The feet of the Llamas are very different from those of the camels, as their haunts are always found to be upon rocky ground, and their feet must of necessity be accommodated to the ground on which they are accustomed to tread. The toes of the Llama are completely divided, and are each furnished with a rough cushion beneath, and a strong, claw-like hoof above, so that the member may take a firm hold of rocky and uneven ground.

Four species of Llamas are now acknowledged; namely, the Vicugna, the Guanaco, the Yamma, and the Alpaca.

The Alpaca, or Paco, is supposed by several zoologists to be only a domesticated variety of the Guanaco. Its colour is generally black, but is often variegated with brown and white. The wool of this species is long, soft, silky, and extremely valuable in the commercial world. A herd of Llamas has been imported into Australia, and seems to have succeeded remarkably well, the yield of wool having been quite as rich as was hoped by the enterprising importer. It is a handsome and a gentle animal, and is only found in a domesticated state.



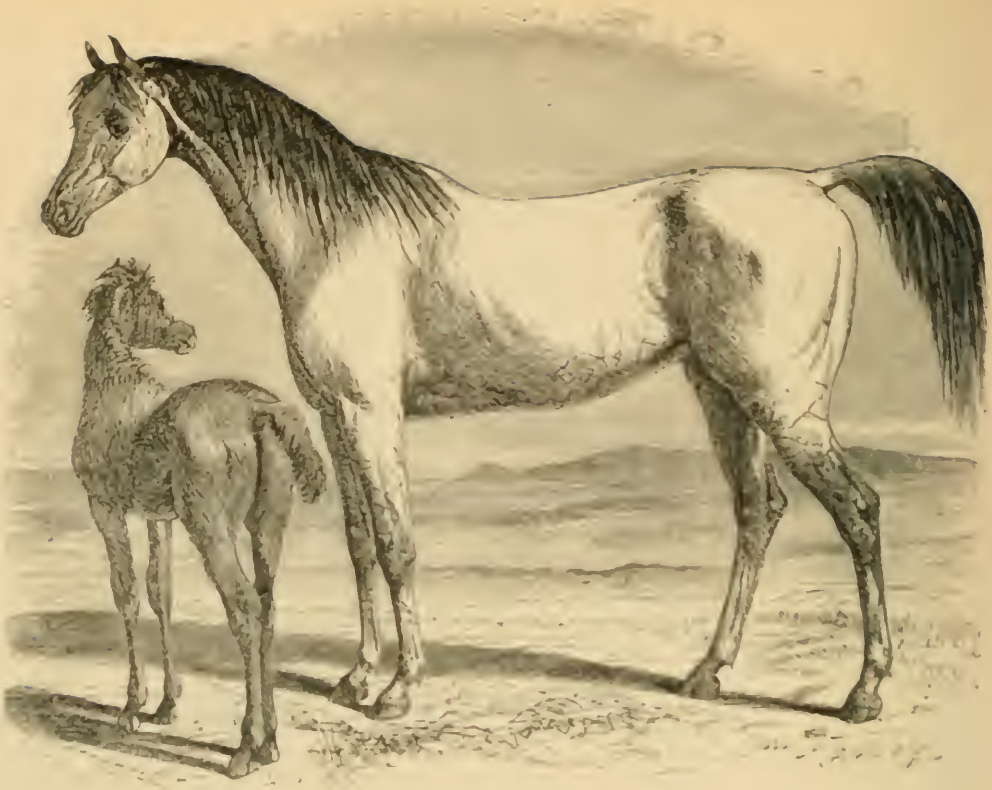
MUSTANG.

The Horse has, from time immemorial, been made the companion and servant of man, and its original progenitors are unknown. It is supposed, however, that the Horse must have derived its origin from central Asia, and from thence have spread to almost every portion of the globe.

A well-known example of the Wild Horse is the Mustang of the American prairies.

This animal is congregated into vast herds, which are always under the guardianship of a single leader, who is able, in some wonderful manner, to convey his orders to all his subjects simultaneously. Although surrounded by various enemies, such as the puma, the wolf, and the jaguar, they care little for these ravenous and powerful carnivora, trusting in their united strength to save them from harm.

The Mustang is always a strong and useful animal, and is much sought after as a saddle-horse. To capture these wild creatures is a very difficult matter, and is generally managed by the help of the lasso, although the rifle is sometimes called into requisition in difficult cases.

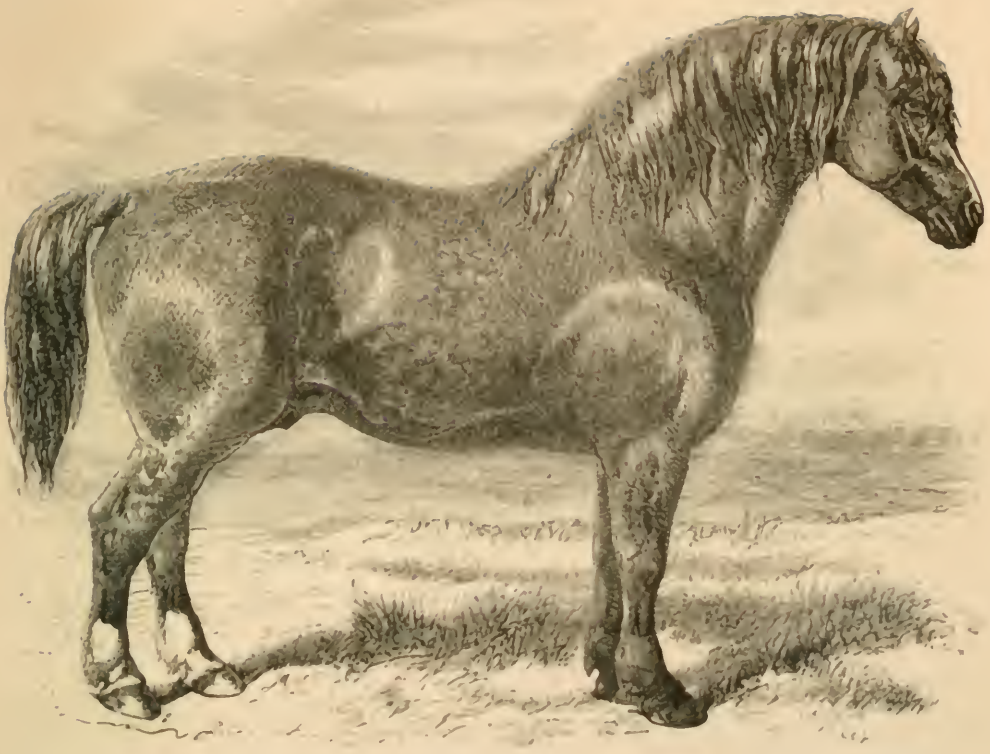


ARAB HORSE.

The elegant, swift, and withal powerful Horses of which England is so proud, and which are employed in the chase or the course, owe their best qualities to the judicious admixture of the Arabian blood. The Arab Horse has long been celebrated for its swift limbs, and exquisite form, and affectionate disposition; the latter quality resulting, however, chiefly from the manner in which it is tamed.

There are several breeds of Arab Horses, only one of which is of very great value. This variety, termed the Kochlani, is so highly prized, that a mare of the pure breed can hardly be procured at any cost, and even the male animal is not easy of attainment.

The body of the Arab Horse is very light, its neck long and arched, its eyes full and soft, and its limbs delicate and slender. The temper of the animal is remarkably sweet, for as it has been born and bred among the family of its owner, it avoids injuring even the little children that roll about among its legs, as carefully as if they were its own offspring. So attached to its owner is this beautiful Horse, that if he should be thrown from its back, the animal will stand quietly by its prostrate master, and wait until he gains strength to remount.



CLYDESDALE CART HORSE.

One of the best Horses for ordinary heavy work is the Clydesdale Cart Horse, an animal which has derived its name from the locality where it was first bred. It is larger than the Suffolk Punch, and owes its origin to the Lanark Horse, crossed with the large Flemish breed. In temper it is docile, and it is possessed of enormous strength and great endurance. The pure breed is large and heavy, and is notable for a very long stride. When judiciously crossed with other breeds it produces offspring which are extensively employed in the carriage and for the saddle. The figure of the Clydesdale Cart Horse which accompanies this brief notice is a portrait of a remarkably fine animal named Prince Albert.

SHETLAND PONY.

Several breeds of partially wild Horses are still found in the British islands, the best known of which is the Shetland Pony.

This odd, quaint, spirited little animal is an inhabitant of the islands at the northern extremity of Scotland, where it runs wild, and may be owned for the occasion by any one who can catch and hold it. Considering its diminutive proportions, which only average seven or eight hands in height, the Sheltie is wonderfully strong, and can trot away quite easily with a tolerably heavy man on his back. One of these little creatures carried a man of twelve stone weight for a distance of forty miles in a single day. The head of this little animal is small, the neck short and well arched, and covered with an abundance of heavy mane, that falls over the face and irresistibly reminds the spectator of a Skye-terrier. It is an admirable draught Horse when harnessed to a carriage of proportionate size; and a pair of these spirited little creatures, when attached to a low lady's carriage, have a remarkably piquant and pretty appearance.

ASS.— *Asinus vulgaris.*

Man has so long held the Domestic Ass under his control, that its original progenitors have entirely disappeared from the face of the earth.

There are, as it is well known, abundant examples of wild Asses found in various lands, but it seems that these animals are either the descendants of domesticated Asses which have escaped from captivity, or mules between the wild and domestic animals.

Strong, surefooted, hardy, and easily maintained, the Ass is of infinite use to the poorer classes of the community, who need the services of a beast of burden, and cannot afford to purchase or keep so expensive an animal as a horse. In the hands of unthinking and uneducated people, the poor creature generally leads a very hard life, and is subjected to much and undeserved ill-treatment; not so much from deliberate cruelty as from want of thought.

This cruel treatment is as impolitic as it is inhuman; for there are few animals which will better repay kindness than the Ass, or will develop better qualities.

ZEBRA.— *Asinus Zebra.*

Among all the species of the Ass tribe, the Zebra is by far the most conspicuous and the most beautiful.

The general colour of the Zebra is a creamy white, marked regularly with velvety black stripes that cover the entire head, neck, body, and limbs, and extend down to the very feet. It is worthy of note, that the stripes are drawn nearly at right angles to the part of the body on which they occur, so that the stripes of the legs are horizontal, while those of the body are vertical. The abdomen and inside faces of the thighs are cream-white, and the end of the tail is nearly black. This arrangement of colouring is strangely similar to that of the tiger, and has earned for the animal the name of "Hippotigris," or Horse-tiger, among some zoologists, ancient and modern. The skin of the neck is developed into a kind of dewlap, and the tail is sparingly covered with coarse black hair. By the Cape colonists it is called "Wilde Paard," or Wild horse.

QUAGGA.—*Asinus Quagga.*

Africa produces several most beautiful examples of the Wild Asses, equalling the Asiatic species in speed and beauty of form, and far surpassing them in richness of colour and boldness of marking.

The Quagga looks at first sight like a cross between the common wild ass and the zebra, as it only partially possesses the characteristic zebra-stripes, and is decorated merely upon the hind and fore-parts of the body. The streaks are not so dark as they are in the zebra, and the remainder of the body is brown, with the exception of the abdomen, legs, and part of the tail, which are whitish-grey. The Quagga lives in large herds, and is much persecuted by the natives of Southern Africa, who pursue it for the sake of its skin and its flesh, both of which are in high estimation.

ELEPHANT.—*Elephas Indicus.*

There are two species of Elephants, the one inhabiting Asia and the other being found in Africa.

Although the Asiatic and African Elephants are very similar in external form, they may at once be distinguished from each other by the dimensions of the head and the size of the ear. In the Asiatic animal, the head is elongated, the forehead concave, and the ears of ordinary size, while in the African Elephant the head is

much shorter, the forehead convex, and the ears of enormous magnitude, nearly meeting on the back of the head, and hanging with their tips below the neck.

The Elephant, whether Asiatic or African, always lives in herds, varying greatly in numbers, and being always found in the deepest forests, or in their near vicinity. Both species are fond of water, and are never found at any great distance from some stream or fountain, although they can and do make tolerably long journeys for the purpose of obtaining the needful supply of liquid. They have a curious capability of laying up a store of water in their interior, somewhat after the fashion of the camel, but possess the strange accomplishment of drawing the liquid supply from their stomachs by means of their trunks, and scattering it in a shower over their backs in order to cool their heated bodies. When drinking, the Elephant inserts the tip of his trunk into the stream, fills its cavities with water, and then, turning his trunk so as to get the extremity well into his throat, he discharges its contents fairly into his stomach, where it may be heard to splash by any one who is in near proximity to the animal.

The strangest portion of the Elephant's form is the trunk, or proboscis. This wonderful appendage is in fact a development of the upper lips and the nose, and is perforated through its entire length by the nostrils, and is furnished at its extremity with a kind of finger-like appendage, which enables the animal to pluck a single blade of grass, or to pick a minute object from the ground. The value of the proboscis to the Elephant is incredible; without its aid the creature would soon starve. The short, thick neck would prevent it from stooping to graze, while the projecting tusks would effectually hinder it from reaching any vegetables which might grow at the level of its mouth. And as it would be unable to draw water into its mouth without the use of the trunk, thirst would in a very short time end its existence.

The Asiatic Elephant bears a world-wide fame for its capabilities as a servant and companion of man, and for the extraordinary development of its intellectual faculties. Hundreds of these animals are annually captured, and in a very short period of time become wholly subjected to their owners, and learn to obey their commands with implicit submission. Indeed, the power of the human intellect is never so conspicuous as in the supremacy which man maintains over so gigantic and clever an animal as the Elephant. In all work which requires the application of great strength, combined with singular judgment, the Elephant is supreme; but as a mere puller and hauler it is of no very great value. In piling logs, for example, the Elephant soon learns the proper mode of arrangement, and will place them upon each other with a regularity that would not be surpassed by human workmen. Sir Emmerson Tennent mentions a pair of Elephants that were

accustomed to labour conjointly, and which had been taught to raise their wood piles to a considerable height by constructing an inclined plane of sloping beams, and rolling the logs up the beams.

The same writer in his work on Ceylon, relates the following curious anecdote of an Elephant.

"One evening, while riding in the vicinity of Kandy, towards the scene of the massacre of Major Davie's party in 1803, my horse evinced some excitement at a noise which approached us in the thick jungle, and which consisted of a repetition of the ejaculation, *Urmph—urmph!* in a hoarse and dissatisfied tone. A turn in the forest explained the mystery, by bringing me face to face with a tame Elephant, unaccompanied by any attendant. He was labouring painfully to carry a heavy beam of timber, which he balanced across his tusks, but the pathway being narrow, he was forced to bend his head to one side to permit it to pass endways; and the exertion and inconvenience combined, led him to utter the dissatisfied sounds which disturbed the composure of my horse.

On seeing us halt, the Elephant raised his head, reconnoitred us for a moment, then flung down the timber, and forced himself backwards among the brushwood, so as to leave a passage, of which he expected us to avail ourselves. My horse still hesitated: the Elephant observed, and impatiently thrust himself still deeper into the jungle, repeating his cry of *urmph*, but in a voice evidently meant to encourage us to come on. Still the horse trembled; and, anxious to observe the instinct of the two sagacious creatures, I forbore any interference; again the Elephant wedged himself farther in amongst the trees, and waited impatiently for us to pass him, and after the horse had done so, tremblingly and timidly, I saw the wise creature stoop and take up his heavy burthen, turn and balance it on his tusks, and resume his route, hoarsely snorting, as before, his discontented remonstrance."

In its general habits the Elephant is restless and irritable, or rather "fidgety," never remaining quite still, but always in motion in some way or other. At one time it will sway backwards and forwards, at another it will stoop and rise continually, or it will be getting sand or water and sprinkling it over its body, or it will pluck a leafy branch and wave it slowly and gracefully over its back. It is very fond of bathing, and has a curious predilection for drawing a mixture of mud and water into its trunk, and discharging it over its body. It is an admirable swimmer, and will cross large rivers with perfect ease. Sometimes it prefers walking on the bed of the river, merely protruding the tip of its proboscis above the surface for the purpose of breathing.

The Indian Elephant is employed more for purposes of state or for sport than for hard labour, and is especially trained for tiger-hunting. As there is a

natural dread of the tiger deeply implanted in the Elephant's being, it is no easy matter to teach the animal to approach its brindled foe. A stuffed tiger-skin is employed for this purpose, and is continually presented to the Elephant until he learns to lose all distrust of the inanimate object, and to strike it, to crush it with his feet, or to pierce it with his tusks. After a while, a boy is put inside the tiger-skin, in order to accustom the Elephant to the sight of the tiger in motion. The last stage in the proceedings is to procure a dead tiger, and to substitute it for the stuffed representative. Even with all this training, it most frequently happens, that when the Elephant is brought to face a veritable living tiger, the fierce bounds, savage yells, and furious eyes of the beast are so discouraging, that he turns tail, and makes the best of his way from the spot. Hardly one Elephant out of ten will face an angry tiger.

The Elephant is always guided by a mahout, who sits astride upon its neck and directs the movements of the animal by means of his voice, aided by a kind of spiked hook, called the haunkus, which is applied to the animal's head in such a manner as to convey the driver's wishes to the Elephant. The persons who ride upon the Elephant are either placed in the howdah, a kind of wheelless carriage strapped on the animal's back, or sit upon a large pad, which is furnished with cross ropes in order to give a firm hold. The latter plan is generally preferred, as the rider is able to change his position at will, and even to recline upon the Elephant's back if he should be fatigued by the heavy rolling gait of the animal. The Elephant generally kneels in order to permit the riders to mount, and then rises from the ground with a peculiar swinging motion that is quite indescribable, and is most discomposing to novices in the art. Very small Elephants are furnished with a saddle like that which is used upon horses, and is fitted with stirrups. The saddle, however, cannot be conveniently used on animals that are more than six feet in height.

The size of Elephants has been greatly exaggerated, as sundry writers have given fourteen or sixteen feet as an ordinary height, and have even mentioned instances where Elephants have attained to the height of twenty feet. It is true that the enormous bulk of the animal makes its height appear much greater than is really the case. Eight feet is about the average height of a large Elephant, and nine or ten feet is the utmost maximum to which the creature ever attains.

The general colour of the elephant is brown, of a lighter tint when the animal is at liberty, and considerably deeper when its hide is subjected to rubbing with a cocoa-nut brush, and plenty of oil. Sometimes an albino or white Elephant is seen in the forests, the colour of the animal being a pinky-white, and aptly compared to the nose of a white horse.

AFRICAN ELEPHANT.—*Loxodonta Africána.*

The African Elephant is spread over a very wide range of country, extending from Senegal and Abyssinia to the borders of the Cape Colony. Several conditions are required for its existence, such as water, dense forests, and the absence of human habitations.

Although it is very abundant in the locality which it inhabits, it is not often seen by casual travellers, owing to its great vigilance. In spite of its enormous dimensions, it is one of the most invisible of forest creatures, and a herd of

Elephants, of eight or nine feet in height, may stand within a few yards of a hunter without being detected by him, even though he is aware of their presence. The only sure method of ascertaining the presence of Elephants is by listening for one sound which they are continually giving forth, and which they are unable to control. This peculiar noise resembles the bubbling of wine when poured from a bottle, and is caused by the large amount of water which is stored in their interior. This curious sound is emitted at regular intervals, and forms a sure criterion whereby to judge of the direction in which the creatures may be standing.

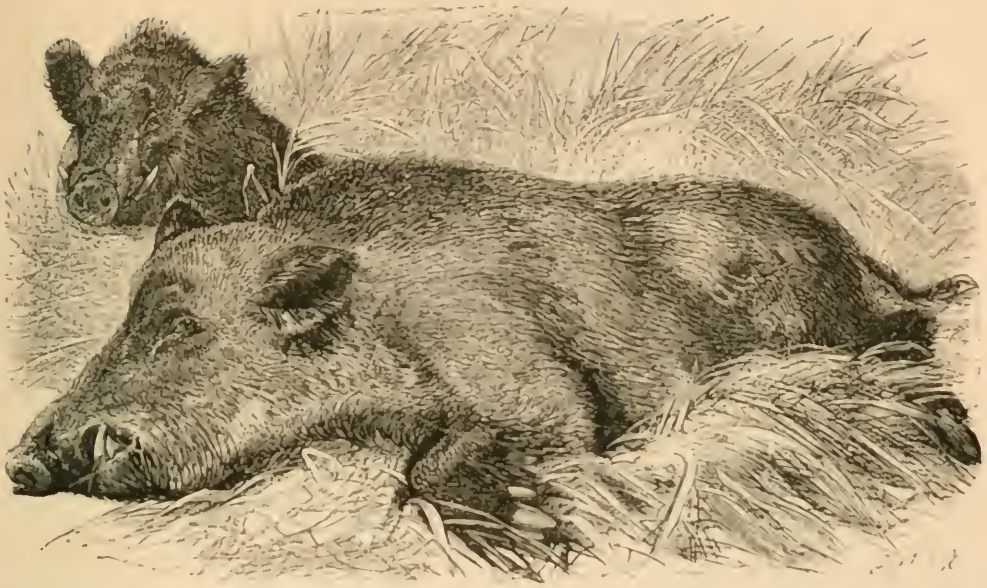
At the present day the African Elephant is never captured and domesticated, although there seems to be but little reason for such an omission. In the ancient times, this species was trained for the arts of war and peace as regularly as the Asiatic Elephant, and its present immunity from a life of captivity seems to be the result of the fears or laziness of the natives. The only object in possessing the African Elephant is to procure its valuable tusks and teeth, and to afford nourishment to the native tribes. Before the introduction of fire-arms among the Kaffir tribes, the Elephant was hunted by men armed with assagais, or spears, and after being unrelentingly pursued for several successive days, was at last forced to succumb under the multitudes of missiles which penetrated its body. Now, however, the musket-ball, however rude may be the weapon, does great service to the black hunter, and the Elephant is slain in far less time and in greater numbers than under the old system.

The Kaffirs are persevering Elephant-hunters, and are wonderfully expert in tracking any individual by the "spoor," or track, which is made by its footsteps. The foot of a male is easily distinguished by the roundness of its form, while that of the female is more oval, and the height of the animal is also ascertained by measurement of the footmarks, twice the circumference of the foot being equal to the height at the shoulder. The mode by which the natives follow a single Elephant through all the multiplied tracks of his companions is very curious. The sole of each Elephant's foot is marked with certain wrinkles, which are never precisely alike in any two individuals, and may be compared to the minute depressions which are found on the human thumb, and which in more primitive times were employed as an expeditious mode of affixing a sign-manual, by being rubbed with ink and impressed upon the document. The black hunter, therefore, taking a soft piece of clay or earth, works it between his hands into a firm and smooth mass, resembling the footmark in shape, and with the point of a thorn traces upon it a chart of the lines which are found on the Elephant's foot. If he should become bewildered amid the multiplicity of footmarks, he has only to refer to his clay chart, and is guarded against the possibility of mistaking one individual for another.

KUDA-AYER OR MALAYAN TAPIR.—*Tapirus Malayanus.*

The Malayan Tapir is found in Malacca and Sumatra, and is a most conspicuous animal, in consequence of the broad band of white that encircles the body, and which at a little distance gives it the aspect of being muffled up in a white sheet.

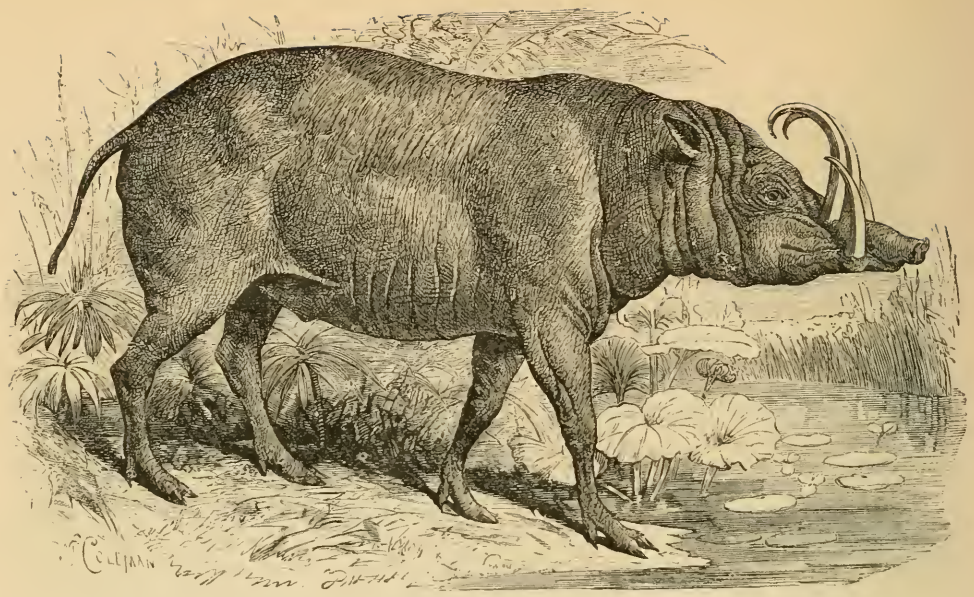
The ground colour of the adult Malayan Tapir is a deep sooty-black, contrasting most strongly with the greyish-white of the back and flanks. The young animal is beautifully variegated, being striped and spotted with yellow fawn upon the upper parts of the body, and with white below. There is no mane upon the neck of the Malayan Tapir. It is said that although the Kuda-Ayer is very fond of water, it does not attempt to swim, but contents itself by walking on the bed of the stream. Although a sufficiently common animal in its native country, it is but seldom seen, owing to its extremely shy habits, and its custom of concealing itself in the thickest underwood.



WILD BOAR.—*Sus scrofa.*

The Wild Boar is spread over the greater portion of the habitable globe, and was in former days common in a wild state even in England, from whence it has only been expelled within a comparatively late period. The chase of the wild boar was a favourite amusement of the upper classes, and the animal was one of those which were protected by the terribly severe forest laws which were then in vogue. The boar was usually slain with the spear, although the net or the arrow were sometimes employed in his destruction.

At the present time the wild Swine have ceased from out of England, in spite of several efforts that have been made to restore the breed by importing specimens from the Continent and turning them into the forests. There are, however, traces of the old wild boars still to be found in the forest pigs of Hampshire, with their high crests, broad shoulders, and thick, bristling mane. These animals are very active, and are much fiercer than the ordinary Swine.

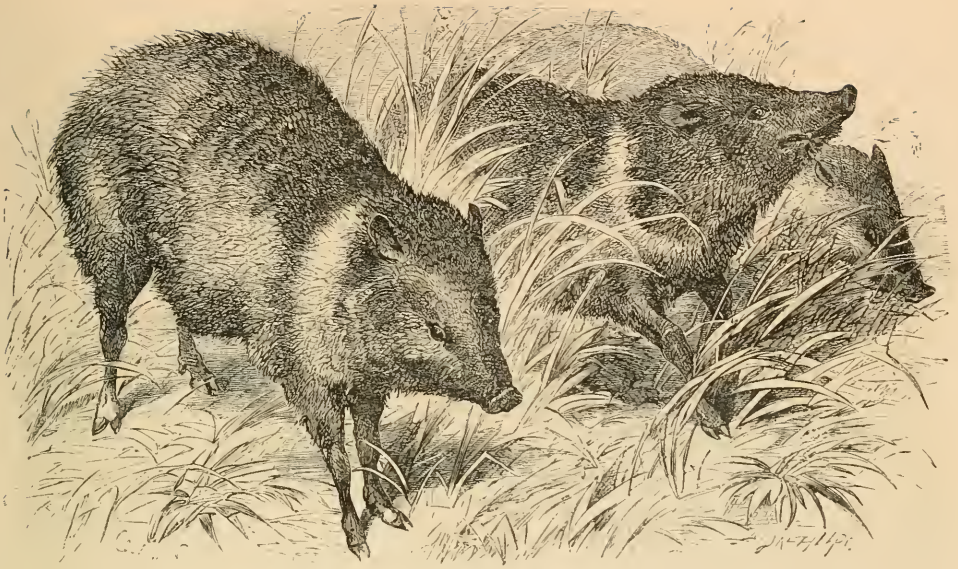


BABYROUSSA.—*Babirussa Alfúrus.*

One of the most formidable looking of Swine is the Babyroussa of Malacca.

This strange creature is notable for the curious manner in which the tusks are arranged, four of these weapons being seen to project above the snout. The tusks of the lower jaw project upward on each side of the upper, as is the case with the ordinary boar of Europe, but those of the upper jaw are directed in a very strange manner. Their sockets, instead of pointing downwards, are curved upwards, so that the tooth, in following the curvature of the socket, passes through a hole in the upper lip, and curls boldly over the face. The curve, as well as the comparative size of these weapons, is extremely variable, and is seldom precisely the same in any two individuals. The upper tusks do not seem to be employed as offensive weapons; indeed, in many instances they would be quite useless for such a purpose, as they are so strongly curved that their points nearly reach the skin of the forehead. The female is devoid of these curious appendages.

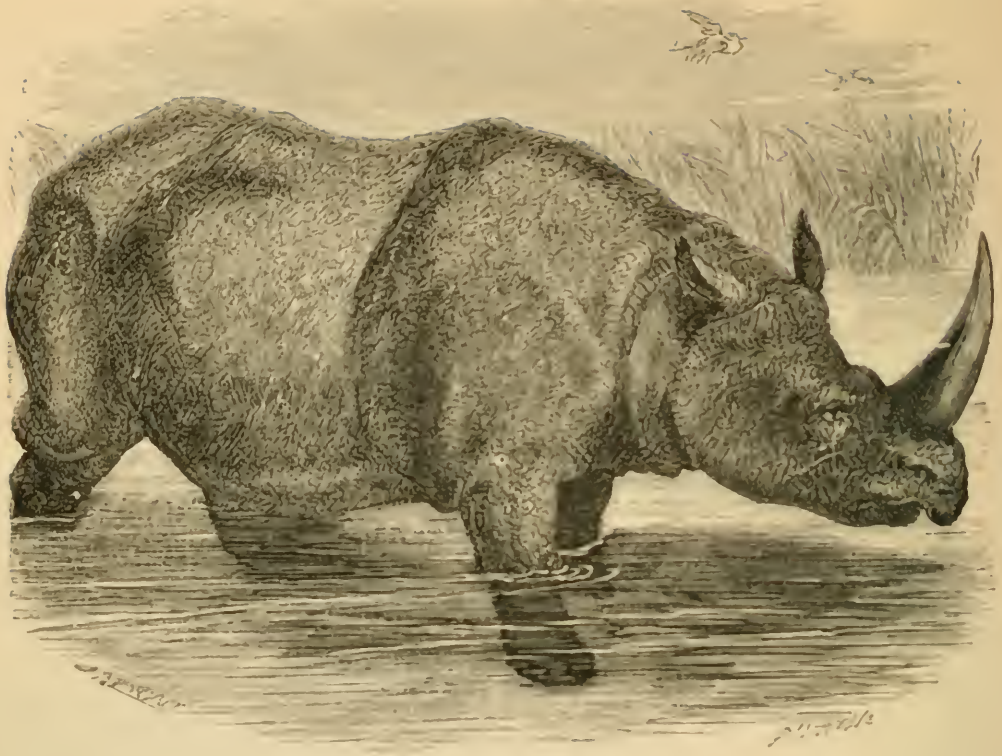
From all accounts, the Babyroussa seems to be a very fierce and dangerous animal, being possessed of great strength, and able to inflict terrible wounds with the tusks of the lower jaw. A naval officer who had experienced several encounters with this creature spoke of it with great respect, and seemed to hold its warlike abilities in some awe. The adult male Babyroussa is considerably larger than the boar of England, and the officer above mentioned told me that he had seen them as large as donkeys. It is a very good swimmer.



PECCARY.—*Dicótyles Tajacu.*

The common Peccary, or Tajacu, of America, although it is of no very great dimensions, resembling a small pig in size, is yet as terrible an animal as the Wily Boar itself. Ever fierce and irritable of temper, the Peccary is as formidable an antagonist as can be seen in any land, for it knows no fear, and will attack and foe without any hesitation. Fear is a feeling of which the Peccary is ignorant, probably because its intellect is not of a very high order, and it is unable to comprehend danger.

The usual resting-place of the Peccary is in the hollow of a fallen tree, or in some burrow that has been dug by an armadillo and forsaken by the original inhabitant. The hollow tree, however, is the favourite resort, and into one of these curious habitations a party of Peccarries will retreat, each backing into the aperture as far as he can penetrate the trunk, until the entire hollow is filled with the odd little creatures. The one who last enters becomes the sentinel, and keeps a sharp watch on the neighbourhood.



INDIAN RHINOCEROS.—*Rhinoceros unicornis.*

There are several species of this singular animal, some inhabiting India and others being found in Africa.

The so-called horn which projects from the nose of the Rhinoceros is a very remarkable structure, and worthy of a brief notice. It is in no way connected with the skull, but is simply a growth from the skin, and may take rank with hairs, spines, or quills, being indeed formed after a similar manner. If a Rhinoceros horn be examined—the species of its owner is quite immaterial—it will be seen to be polished and smooth at the tip, but rough and split into numerous filaments at the base. These filaments which have a very close resemblance to

those which terminate the plates of whale-bone, can be stripped upwards for some length, and if the substance of the horn be cut across, it will be seen to be composed of a vast number of hairy filaments lying side by side.

The skin of the Rhinoceros is of very great thickness and strength, bidding defiance to ordinary bullets, and forcing the hunter to provide himself with balls which have been hardened with tin or solder. The extreme strength of the skin is well known both to the Asiatic and African natives, who manufacture it into shields and set a high value on these weapons of defence.

All the species of Rhinoceros are very tetchy in their temper, and liable to flash out into anger without any provocation whatever. During these fits of rage, they are dangerous neighbours, and are apt to attack any moving object that may be within their reach. In one well-known instance, where a Rhinoceros made a sudden dash upon a number of picketed horses, and killed many of them by the strokes of his horn, the animal had probably been irritated by some unknown cause, and wreaked his vengeance on the nearest victims.

In every species of Rhinoceros the sight appears to be rather imperfect, the animal being unable to see objects which are exactly in its front. The scent and hearing, however, are very acute, and seem to warn the animal of the approach of danger.

The Asiatic species of Rhinoceros are remarkable for the heavy folds into which the skin is gathered, and which hang massively over the shoulders, throat, flanks, and hind quarters. Upon the abdomen the skin is comparatively soft, and can be pierced by a spear which would be harmlessly repelled from the thick folds of hide upon the upper portions of the body. In the INDIAN RHINOCEROS this weight of hide is especially conspicuous, the skin forming great flaps that can be easily lifted up by the hand. In a tamed state the Rhinoceros is pleased to be caressed on the softer skin under the thick hide, and in the wild state it suffers sadly from the parasitic insects that creep beneath the flaps, and lead the poor animal a miserable life, until they are stifled in the muddy compost with which the Rhinoceros loves to envelop its body.

The Rhinoceros is a good aquatic, and will voluntarily swim for considerable distances. It is very fond of hunting the river-banks and wallowing in the mud, so as to case itself with a thick coat of that substance, in order to shield itself from the mosquitoes and other stinging insects which cluster about the tender places, and drive the animal, thick-skinned though it may be, half mad with their constant and painful bites.

HIPPOPOTAMUS.—*Hippópotamus amphibious.*

The Hippopotamus is an enormous quadruped, a native of various parts of Africa, and is always found either in water or in its near vicinity. In absolute height it is not very remarkable, as its legs are extremely short, but the actual bulk of its body is very great indeed. The average height of a full-grown Hippopotamus is about five feet. Its naked skin is dark brown, curiously marked with innumerable lines like those on "crackle" china or old oil-paintings, and is also dappled with a number of sooty black spots, which cannot be seen except on a close inspection. A vast number of pores penetrate the skin, and exude a thick oily liquid, which effectually seems to protect the animal from the injurious effects of the water in which it is so constantly immersed. I once spoiled a pair of gloves entirely by patting the male animal at present in the Zoological Gardens. The mouth is enormous, and its size is greatly increased by the odd manner in which the jaw is set in the head.

Within the mouth is an array of white, gleaming tusks, which have a terrific appearance, but are solely intended for cutting grass and other vegetable substances, and are seldom employed except for that purpose.

With these teeth the Hippopotamus can cut the grass as neatly as if it were mown with a scythe, and is able to sever, as if with shears, a tolerably stout and thick stem.

Possessed of an enormous appetite, having a stomach that is capable of containing five or six bushels of nutriment, and furnished with such powerful instruments, the Hippopotamus is a terrible nuisance to the owners of cultivated lands that happen to be near the river in which the animal has taken up his abode. During the day it is comfortably asleep in its chosen hiding-place, but as soon as the shades of night deepen, the Hippopotamus issues from its den, and treading its way into the cultivated lands, makes sad devastation among the growing crops. Were the mischief to be confined to the amount which is eaten by the voracious brute, it would still be bad enough, but the worst of the matter is, that the Hippopotamus damages more than it eats by the clumsy manner of its progress. The body is so large and heavy, and the legs are so short, that the animal is forced to make a double track as he walks, and in the grass-grown plain can be readily traced by the peculiar character of the tract. It may therefore be easily imagined that when a number of these hungry, awkward, waddling, splay-footed beasts come blundering among the standing crops, trampling and devouring indiscriminately, they will do no slight damage before they think fit to retire.

The aggrieved cultivators endeavour to protect their grounds and at the same time to make the depredators pay for the damage which they have done, by digging a number of pitfalls across the Hippopotamus paths, and furnishing each pit with a sharp stake in the centre.

When an animal falls into such a trap, the rejoicings are great, for not only is ivory of great commercial value, but the flesh is very good eating, and the hide is useful for the manufacture of shields, whips, and spear handles.

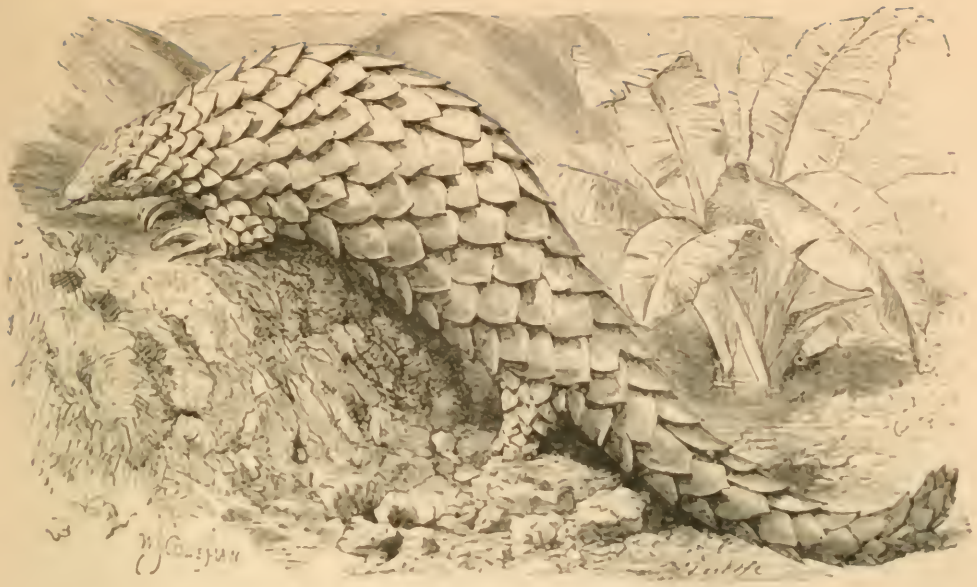
The fat of the Hippopotamus, called by the colonists "Zee-Koespeek," or Sea-cow bacon, is held in very high estimation, as is the tongue and the jelly which is extracted from the feet. The hide is so thick that it must be dragged from the creature's body in slips, like so many planks, and is an inch and a half in thickness on the back, and three quarters of an inch on the other portions of the body. Yet, in spite of its enormous thickness and its tough quality, it is quite pliable when seen on the living beast, and accommodates itself easily to all his movements.

The Hippopotamus is, as the import of its name, River Horse, implies, most acquatic in its habits. It generally prefers fresh water, but it is not at all averse to the sea, and will sometimes prefer salt water to fresh. It is an admirable

swimmer and diver, and is able to remain below the surface for a very considerable length of time. In common with the Elephant, it possesses the power of sinking at will, which is the more extraordinary when the huge size of the animal is taken into consideration. Perhaps it may be enabled to contract itself by an exertion of the muscles whenever it desires to sink, and to return to its former dimensions when it wishes to return to the surface. It mostly affects the stillest reaches of the river, as it is less exposed to the current, and not so liable to be swept down the stream while asleep. The young Hippopotamus is not able to bear submersion so long as its parent, and is therefore carefully brought to the surface at short intervals for the purpose of breathing.

There are various modes of hunting this mischievous but valuable animal, each of which is in vogue in its own particular region. The pitfalls above mentioned are universal throughout the whole Hippopotamus country, and lure many an animal to its destruction without needing any care or superintendence on the part of the men who set the snare. There is also the "down-fall," a trap which consists of a log of wood, weighed heavily at one end, to which extremity is loosely fixed a spear-head well treated with poison. This terrible log is suspended over some Hippopotamus path, and is kept in its place by a slight cord which crosses the path and is connected with a catch or trigger. As soon as the animal presses the cord, the catch is liberated, and down comes the armed log, striking the poisoned spear deep into the poor beast's back, and speedily killing it by the poison, if not from the immediate effects of the wound.

The white hunter of course employs his rifle and finds that the huge animal affords no easy mark, as unless it is hit in a mortal spot it dives below the surface and makes good its escape. Mortal spots, moreover, are not easy to find, or when found, to hit; for the animal soon gets cunning after it has been alarmed, and remains deeply immersed in the water as long as it is able, and when it at last comes to the surface to breathe, it only just pushes its nostrils above the surface, takes in the required amount of air, and sinks back again to the river bed. Moreover, it will often be so extremely wary, that it will not protrude even its mouth in the open water, and looks out for some reeds or floating substances which may cover its movements while breathing. As a general rule it is found that the most deadly wound that can be given to a Hippopotamus is on the nose, for the animal is then unable to remain below the surface, and consequently presents an easy mark to the hunter. A heavy ball just below the shoulder always gives a mortal wound, and in default of such a mark being presented, the eye or the ear is a good place to aim at.

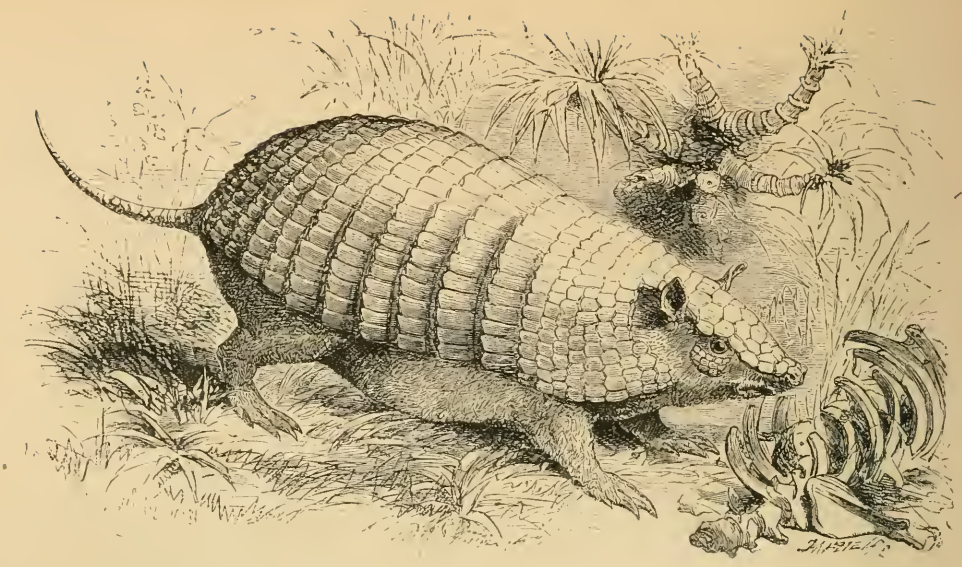


BAJJERKEIT.—*Manis pentadáctyla.*

We now come to a singular group of animals, the first of which is the Bajjerkeit, or Short Tailed Manis, a creature that is remarkable for the series of sharp-edged horny plates that cover the body and serve as armour and weapons of offence.

When the Manis is pursued, and is unable to escape, it rolls itself into a ball, after the manner of the hedgehog, so that the sharp-edged and acutely pointed scales stand boldly outward, and can inflict very unpleasant wounds on the hand of man or the mouth of predaceous beast. The head is the most vulnerable part of the Manis, but as it always takes care to hide its head within the curve of the body, it has little fears on that score.

It feeds on various insects, especially on ants, which it seizes by licking them up with its slimy tongue. Of this species Sir Emmerson Tennent says: "The only example in Ceylon is the scaly ant-eater, called by the Singalese, Caballaya, but usually known by its Malay name of Pengolin, a word indicative of its faculty of 'rolling itself up' into a compact ball, by bending its head towards its stomach, arching its back into a circle, and securing all by a powerful hold of its mail-covered tail. When at liberty, they burrow in the dry ground to a depth of seven or eight feet, where they reside in pairs, and produce annually two or three young."



ARMADILLO.—*Dásypus sexcinctus.*

The Armadillos are inhabitants of Central and Southern America, and are tolerably common throughout the whole of the land in which they live. The general structure of the armour is similar in all the species, and consists of three large plates of horny covering; one being placed on the head, another on the shoulders, and the third on the hind quarters. These plates are connected by a series of bony rings, variable in number, overlapping each other, and permitting the animal to move freely, Each plate and band is composed of a number of small plates, joined together, and forming patterns which differ in the various species. The whole of the animal, even to the long and tapering tail, is covered with these horny scales, with the exception of the upper part of the legs, which are concealed under the armour of the body, and need no other protection. At and soon after birth, the infant Armadillo is quite soft, like parchment, but the skin is marked in a similar manner to that of the adult animal, excepting that the hairs that protrude between the shelly plates are more numerous.

The common Armadillo, or Poyou, is about twenty inches in total length, the tail occupying some six or seven inches. It is very common in Paraguay, but is not easily captured, owing to its remarkable agility, perseverance, and wariness. Encumbered as it appears to be with its load of plate-armour, it runs with such speed that it can hardly be overtaken by a quick-footed man, and if it should contrive to reach its burrow, it can never be got out except by dint of hard work.

AARD VARK.—*Orycteropus Capensis.*

The Ant-eaters, as their name imports, feed very largely on ants, as well as on termites and various other insects, their long flexible tongue acting as a hand for the purpose of conveying food into the mouth. The tongue of the Ant-eater, when protuded to its fullest extent, bears some resemblance to a great red earth-worm, and as it is employed in its food-collecting task, it coils and twists about as if it possessed a separate vitality of its own.

The Aard Vark, or Earth-hog, is a native of Southern Africa, and is a very curious animal. The skin of the Aard Vark is not protected by scales or plates like those of the manis and the armadillo, but rather thinly covered with coarse bristly hair. Its length is about five feet, the tail being twenty inches long, and it is a very powerful creature, especially in the fore-limbs, which are adapted for digging, and are furnished with strong hoof-like claws at their extremities. These claws can be used with marvellous rapidity and force, and are employed for the purpose of destroying the dwellings of the ants on which the Aard Vark feeds, as well as for digging a burrow for its own habitation.

The burrows are not very deep, but are of tolerably large dimensions, and are often used, when deserted, as extempore tombs, to save the friends of the deceased from the trouble of digging a grave for their departed comrade.

TAMANOIR, OR ANT-BEAR.—*Myrmecóphaga jubáta.*

In its general habits and structure, the Ant-Bear, Great Ant-eater, or Tamanoir, is very similar to the preceding animal. It is, however, entirely toothless, possesses a very long and slender head, and is thickly covered with long, coarse, hay-like hair, which on the tail forms a heavy plume.

The claws of the fore-feet are extremely long and curved, and are totally unfitted for locomotion. When the animal is not employing these instruments in destroying, it folds the long claws upon a thick, rough pad which is placed in the palm, and seems to render the exertion of walking less difficult. As, however, the Ant-bear is forced to walk upon the outer edge of its fore-feet, its progress is a peculiarly awkward one, and cannot be kept up for any long time.

The Ant-bear is said to make no burrow, but to content itself with the shade of its own plumy tail whenever it retires to rest. While sleeping, the creature looks very like a rough bundle of hay, thrown loosely on the ground, for the hair of the mane and tail is so long and so harsh that it can hardly be recognised at the first glance for the veritable coat of a living animal.

TAMANDUA.—*Tamandua Tetradáctyla.*

The Tamandua possesses an elongated head, like that of the tamanoir, but the skull is not so extraordinarily long as in that animal, and the hair is short over the entire body. Indeed, the Tamandua looks like a small specimen of the tamanoir, which has been clipped from its neck to the tip of its tail. The colour of this species is much lighter than that of the tamanoir, and a black stripe passes over each shoulder. In size it is comparatively small, measuring, when full-grown, barely three feet and a half in total length.

It is a more active animal than the preceding species, and is a good climber of trees, which it ascends in search of the animals on which it feeds. The tail is long and tapering, and possesses something of the prehensile quality. It is naked at the tip, but at the base is thickly covered with hair of the same short, coarse kind that is spread over the body. When young, its fur is a pale cinnamon.

DUCK BILL, OR MULLINGONG.—*Platypus Anatinus.*

The Duck Bill of Australia derives its name from the curious form of the fore part of the head, which remarkably resembles the beak of a duck.

The beak is well supplied with nerves, and appears to be a sensitive organ of touch, by means of which the animal is enabled to feel as well as to smell the insects and other creatures on which it feeds.

The Mullingong is an essentially aquatic and burrowing animal, and is formed expressely for its residence in the water, or under the earth. The fur is thick, soft, and is readily dried while the animal enjoys good health, although it becomes wet and draggled when the creature is weakly. The opening of the ears is small and can be closed at will, and the feet are furnished with large and complete webs, extending beyond the claws in the fore limbs, and to their base in the hind legs. The fore-feet are employed for digging as well as for swimming, and are therefore armed with powerful claws rather more than half an inch in length, and rounded at their extremities. With such force can these natural tools be used, that the Duck-bill has been seen to make a burrow two feet in length through hard gravelly soil in a space of ten minutes. While digging, the animal employs its beak as well as its feet, and the webbed membrane contracts between the joints so as not to be seen. The hind-feet of the male are furnished with a spur, about an inch in length, curved, perforated, and connected with a gland situated near the ancle.

ECHIDNA OR PORCUPINE ANT-EATER.—*Echidna Hystrix.*

The Echidna is found in several parts of Australia, where it is popularly called the hedgehog, on account of the hedgehog-like spines with which the body is so thickly covered, and its custom of rolling itself up when alarmed. A number of coarse hairs are intermingled with the spines, and the head is devoid of these weapons, The head is strangely lengthened, in a manner somewhat similar to that of the ant-eater, and there are no teeth of any kind in the jaws.

The food of the Echidna consists of ants and other insects, which it gathers into its mouth by means of the long extensile tongue. It is a burrowing animal, and is therefore furnished with limbs and claws of proportionate strength. Indeed, Lieutenant Breton, who kept one of these animals for some time, considers it as the strongest quadruped in existence in proportion to its size. On moderately soft ground it can hardly be captured, for it gathers all its legs under its body, and employs its digging claws with such extraordinary vigour that it sinks into the ground as if by magic. The hind-feet are employed by the animal for two purposes, *i.e.* locomotion and the offices of the toilet. There is a spur on the hind part of the male similar to that of the duck-bill. The flesh of the Echidna is very good, and is said to resemble that of the sucking-pig.

SLOTH.—*Cholæpus didáctylus.*

The common Sloth, sometimes called the Two-toed Sloth, is a native of the West Indies, where it is not very often seen, although it is not a very uncommon animal.

The peculiarity to be noticed in all the Sloths, of which there are several species, is, that they pass the whole of their lives suspended, with their backs downwards, from the branches of trees. The Sloth never gets upon a bough, but simply hooks his curved talons over it, and hangs in perfect security. In order to enable the animal to suspend itself without danger of falling, the limbs are enormously strong, the fore-legs are remarkable for their length, and the toes of all four feet are furnished with strong curved claws. Upon the ground the Sloth is entirely out of its element, as its limbs are wholly unadapted for supporting the weight of the body. The only manner in which a Sloth can advance, when he is unfortunately placed in such a position, is by hitching his claws into any depression that may afford him a hold, and so dragging himself slowly and painfully forward. On the trees, however, he is quite a different creature, full of life and animation, and traversing the branches at a speed which is anything but slothful.

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Wood, J. G. 1827-1889.
Natural history picture book. Mammalia.

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